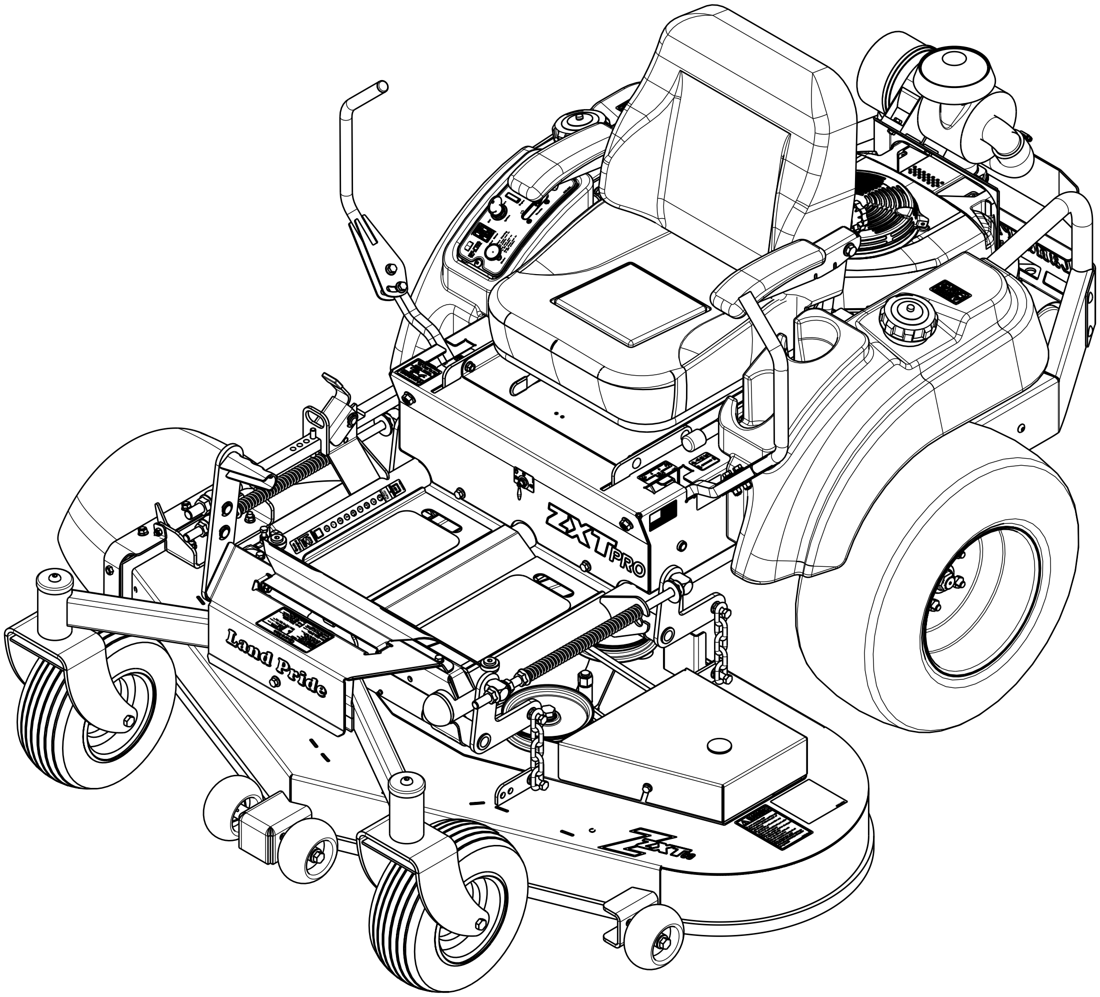
Riding Mowers

ZXT54 & ZXT60 Pro Series Zero Turning Radius Mowers



25859

357-271M
Operator's Manual

Read the Operator's manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

© Copyright 2009 Printed **2/10/09**

Cover photo may show optional equipment not supplied with standard unit.

Important Safety Information 1
  Safety at All Times 1
  Safety Labels 4
Introduction 8
  Application 8
  Using This Manual 8
  Owner Assistance 8
Section 1: Assembly & Set-up 10
  Uncrating Instructions 10
  Control Lever Assembly 10
  Seat Assembly 10
  Hitch Plate Assembly 11
  Electrical Cable Connection 11
  Engine Preparations 11
  Remove Mower From Crate Floor 11
Section 2: Operating Procedures 12
  Mower Features 12
  Operating Check List 13
  Instrumentation 13
    Engine Oil Pressure Light 13
    Hour Meter 13
  Controls 13
    Ignition Switch 13
    Throttle 13
    Choke 14
    Blade Engagement Switch 14
    Left/Right Fuel Tank Valve 14
    Park Brake 14
    Control Levers 15
    Deck Lift Pedal 15
  Engine Starting 15
  Engine Shut-Down Sequence 15
  Safety Start Interlock System 16
  Driving the Mower 16
  Moving Mower with Stalled Engine 18
  Safe Operating Instructions 18
  Mower Deck Operation 20
  General Operating Information 20
Section 3: Adjustments 22
  Torque Values 22
  Steering Adjustments 22
    Neutral Creep Adjustment 22
    Control Lever Adjustable Stops 23
    Adjust Stops to Protect Pumps 23
    Adjust Stops to Drive Straight 23
    Steering Dampener Adjustment 24
  Upper Control Lever Adjustments 24
  Seat Adjustment 25
  Ground Drive Belt Adjustment 25
  Deck Drive Belt Adjustment 26
  Deck Leveling & Height Adjustments 26
  Park Brake Adjustment 29
  Front Axle Pivot 29
Section 4: Options & Accessories 30
  Roll Over Protection System (ROPS) 30
  Folding Soft Top Canopy 30
  Snow Plow 30
  Light Kit 30
  Screw Jack 31
  Mulching Kit 31
Section 5: Maintenance & Lubrication 32
  Maintenance 32
  Torque Values 32
  Maintenance Schedule 33
  Maintenance Locations 34
  Electrical System 36
  Hydrostatic Drive System 37
    Hydraulic Oil Level Check 37
    Hydraulic Oil and Filter Change 37
  Fuel System 38
  Fuel Filter 38
  Draining The Fuel Tank 39
  General Engine Maintenance 39
  Engine Oil and Oil Filter 39
    Oil Check, Honda & Kawasaki Engines 39
    Oil Check, Briggs & Stratton Engine 39
  Engine Air Filter 40
    Briggs & Stratton Air Filter 40
    Honda & Kawasaki Air Filters 40
  Air Filter Handling 41
  Belt Maintenance 42
    Deck Drive Belt Removal & Installation 42
    Ground Drive Belt Removal & Installation 42
  Mower Blade Maintenance 44
  Storage 45
  Preparation of Engine for Storage 45
  New Season Preparation 46
  Lubrication Points 47
Section 6: Specifications & Capacities 49
Section 7: Features and Benefits 51
Section 8: Troubleshooting 53
Section 9: Appendix 55
  Torque Values Chart 55
  Tire Inflation Chart 55
  Notes 56
  Warranty 57

© Copyright 2009 All rights Reserved

Land Pride provides this publication “as is” without warranty of any kind, either expressed or implied. While every precaution has been taken in the preparation of this manual, Land Pride assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained herein. Land Pride reserves the right to revise and improve its products as it sees fit. This publication describes the state of this product at the time of its publication, and may not reflect the product in the future.

Land Pride is a registered trademark.

All other brands and product names are trademarks or registered trademarks of their respective holders.

Printed in the United States of America.

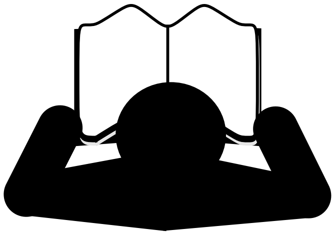
These are common practices that may or may not be applicable to the products described in this manual.

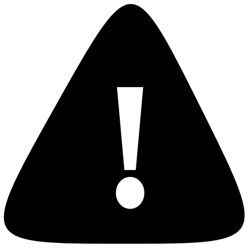
Safety at All Times

Thoroughly read and understand the instructions given in this manual before operation. Refer to the “Safety Label” section, read all instructions noted on them.

Do not allow anyone to operate this equipment who has not fully read and comprehended this manual and who has not been properly trained in the safe operation of the equipment.

- Operator should be familiar with all functions of the unit.
- Operate implement from the driver’s seat only.
- Do not leave equipment unattended with engine running.
- Dismounting from a moving mower could cause serious injury or death.
- Do not stand between the mower and implement during hitching.
- Keep hands, feet, and clothing away from power-driven parts.
- Wear snug fitting clothing to avoid entanglement with moving parts.
- Watch out for wires, trees, etc., when raising implement. Make sure all persons are clear of working area.
- Turning mower too tight may cause implement to ride up on wheels. This could result in injury or equipment damage.





Look For The Safety Alert Symbol

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

Be Aware of Signal Words

A Signal word designates a degree or level of hazard seriousness. The signal words are:

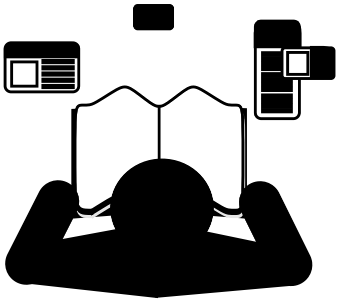
⚠ DANGER
Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

⚠ WARNING
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

⚠ CAUTION
Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

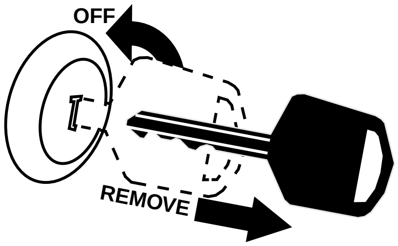
For Your Protection

- Thoroughly read and understand the “Safety Label” section, read all instructions noted on them.



Shutdown and Storage

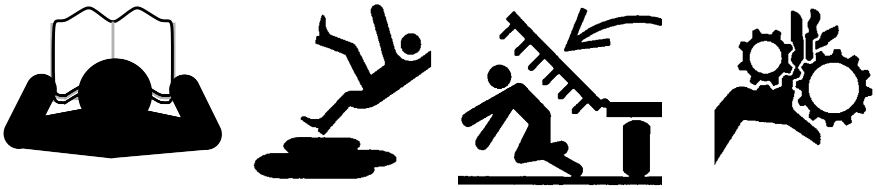
- Lower machine to ground, put mower in park, turn off engine, and remove the key.
- Detach and store implements in a area where children normally do not play. Secure implement by using blocks and supports.



These are common practices that may or may not be applicable to the products described in this manual.

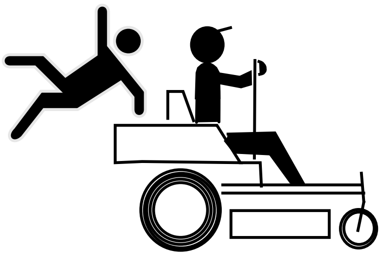
Practice Safe Maintenance

- Understand procedure before doing work. Use proper tools and equipment, refer to Operator’s Manual for additional information.
- Work in a clean dry area.
- Put mower in park, turn off engine, and remove key before performing maintenance.
- Allow mower to cool completely before performing maintenance.
- Do not grease or oil mower while in operation.
- Inspect all parts. Make sure parts are in good condition and installed properly.
- Remove buildup of grease, oil or debris.
- Remove all tools and unused parts from mower before operation.



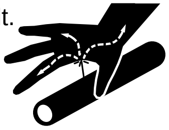
Keep Riders Off Machinery

- Riders obstruct the operator’s view, they could be struck by foreign objects or thrown from the machine.
- Never allow children under 16 years of age to operate equipment.



Avoid High Pressure Fluids Hazard

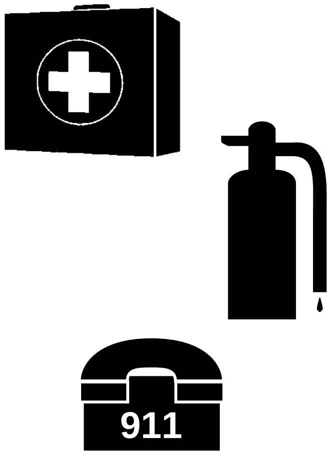
- Escaping fluid under pressure can penetrate the skin causing serious injury.
- Avoid the hazard by relieving pressure before disconnecting hydraulic lines or performing work on the system.
- Make sure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before aqpplying pressure to the system.
- Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
- Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be treated within a few hours or gangrene may result.



These are common practices that may or may not be applicable to the products described in this manual.

Prepare for Emergencies

- Be prepared if a fire starts.
- Keep a first aid kit and fire extinguisher handy.
- Keep emergency numbers for doctor, ambulance, hospital and fire department near phone.



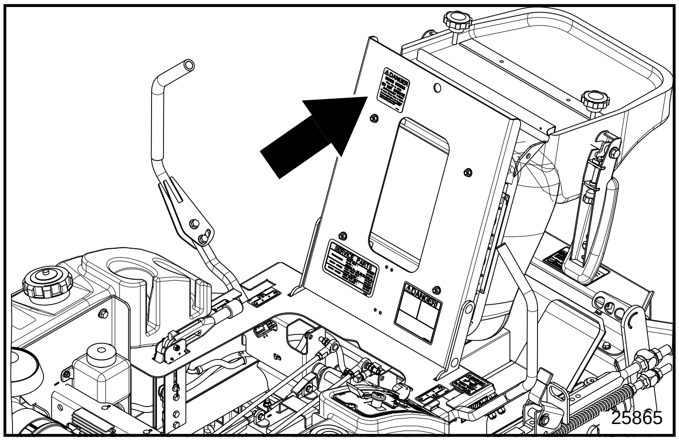
Wear Protective Equipment

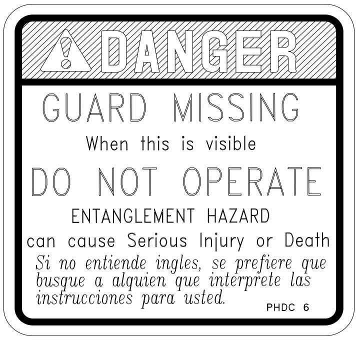
- Protective clothing and equipment should be worn.
- Wear clothing and equipment appropriate for the job. Avoid loose fitting clothing.
- Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- Operating equipment safely requires the full attention of the operator. Avoid wearing radio headphones while operating machinery.

Safety Labels

Your mower comes equipped with all safety labels in place. They were designed to help you safely operate your implement. Read and follow their directions.

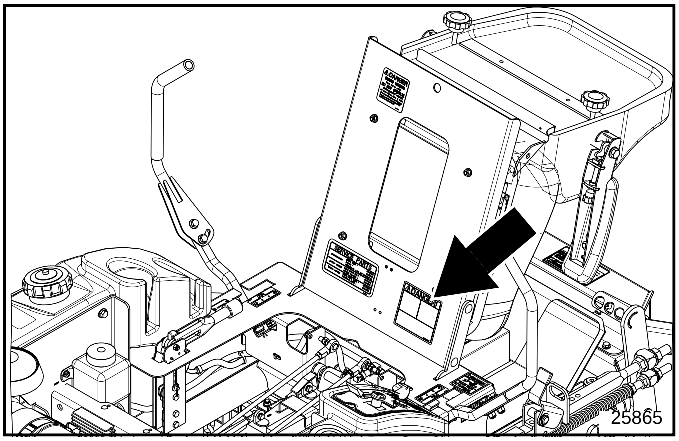
1. *Keep all safety labels clean and legible.*
2. *Replace all damaged or missing labels. To order new labels go to your nearest Land Pride dealer.*
3. *Some new equipment installed during repair requires safety labels to be affixed to the replaced component as specified by Land Pride. When ordering new components make sure the correct safety labels are included in the request.*
4. *Refer to this section for proper label placement. To install new labels:*
    - a. *Clean the area the label is to be placed.*
    - b. *Spray soapy water on the surface where the label is to be placed.*
    - c. *Peel backing from label. Press firmly onto the surface.*
    - d. *Squeeze out air bubbles with the edge of a credit card.*

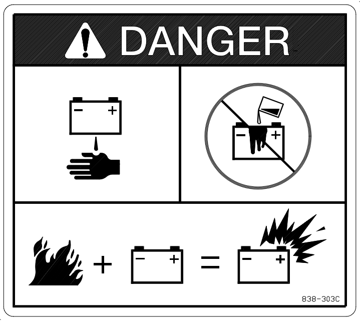



DANGER
GUARD MISSING
When this is visible
DO NOT OPERATE
ENTANGLEMENT HAZARD
can cause Serious Injury or Death
Si no entiende ingles, se prefiere que busque a alguien que interprete las instrucciones para usted.
PHDC 6

818-543C

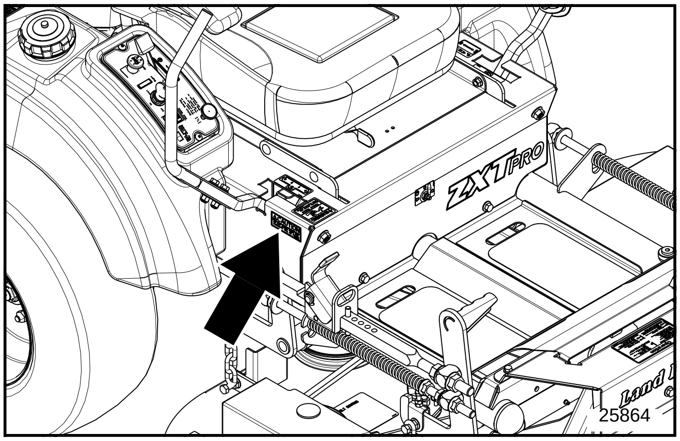
Danger: Guard Missing
(Beneath The Seat Mount)

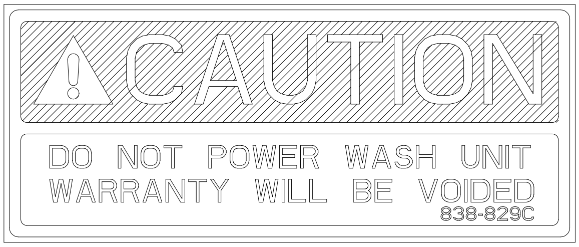




838-303C

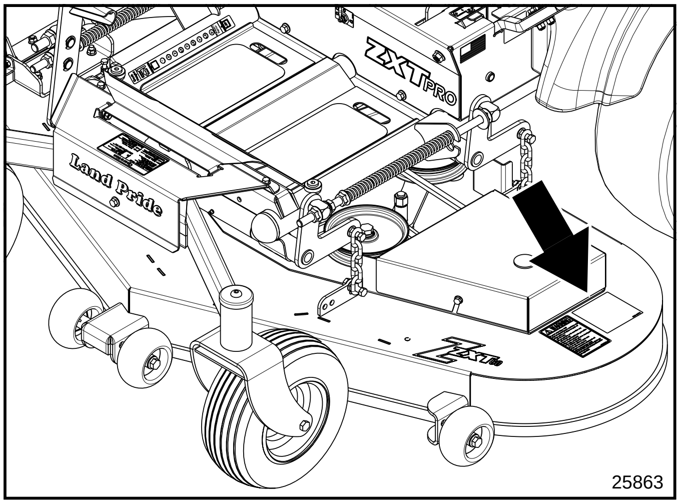
Danger: Battery
(Beneath The Seat Mount)

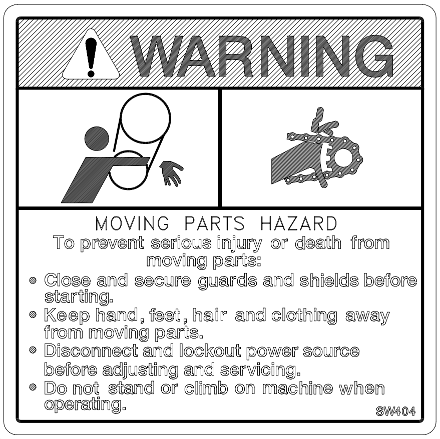



CAUTION
DO NOT POWER WASH UNIT
WARRANTY WILL BE VOIDED
838-829C

838-829C

Caution: Do Not Power Wash




WARNING

MOVING PARTS HAZARD

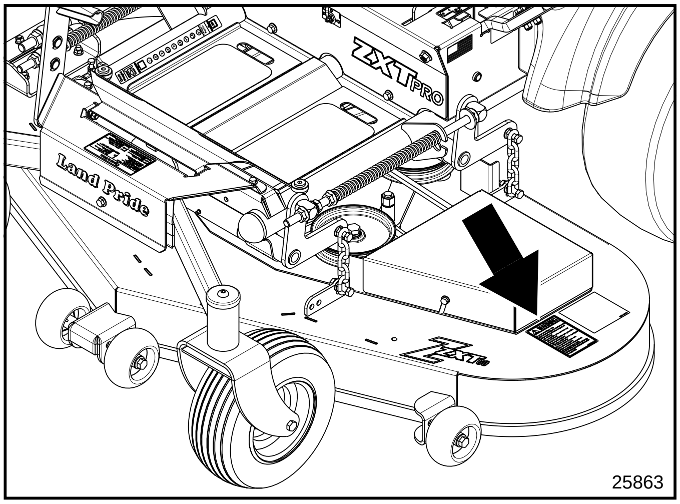
To prevent serious injury or death from moving parts:

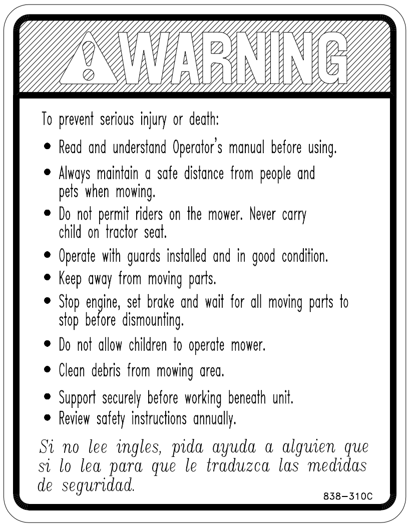
- Close and secure guards and shields before starting.
- Keep hand, feet, hair and clothing away from moving parts.
- Disconnect and lockout power source before adjusting and servicing.
- Do not stand or climb on machine when operating.

SW404

838-307C

Warning: Moving Parts




WARNING

To prevent serious injury or death:

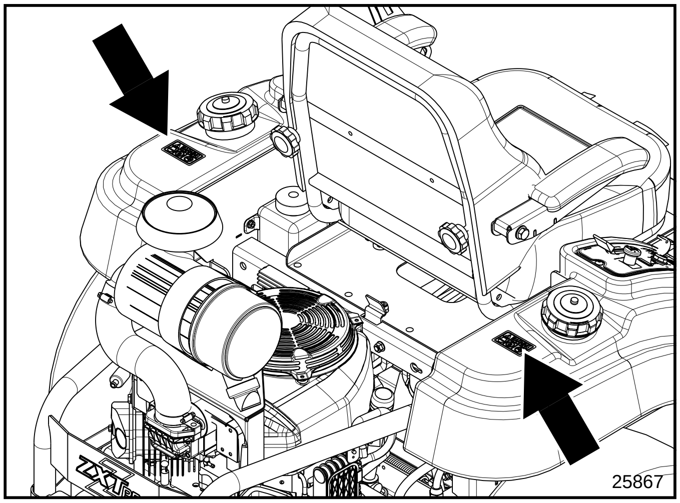
- Read and understand Operator's manual before using.
- Always maintain a safe distance from people and pets when mowing.
- Do not permit riders on the mower. Never carry child on tractor seat.
- Operate with guards installed and in good condition.
- Keep away from moving parts.
- Stop engine, set brake and wait for all moving parts to stop before dismounting.
- Do not allow children to operate mower.
- Clean debris from mowing area.
- Support securely before working beneath unit.
- Review safety instructions annually.

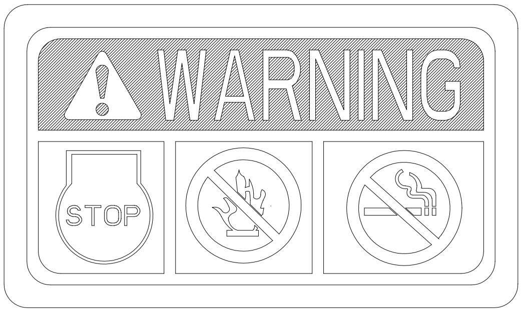
Si no lee ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad.

838–310C

838-310C

Warning: General

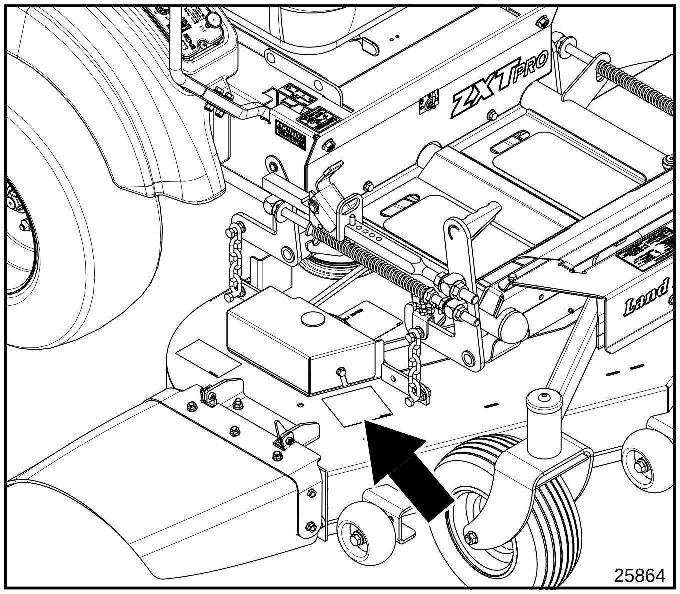


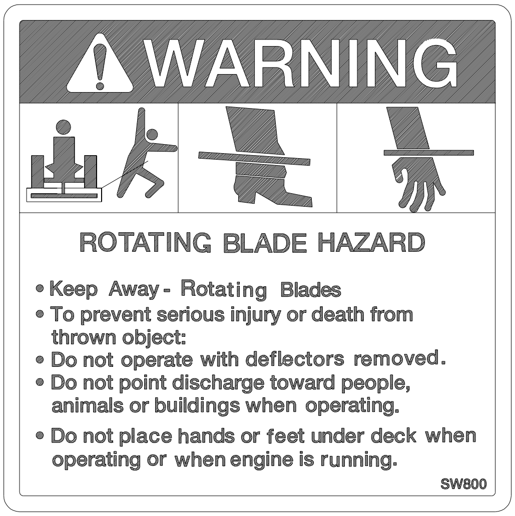

WARNING

STOP

838-833C

Warning: Fuel (Imbedded in Fuel Tank)




WARNING

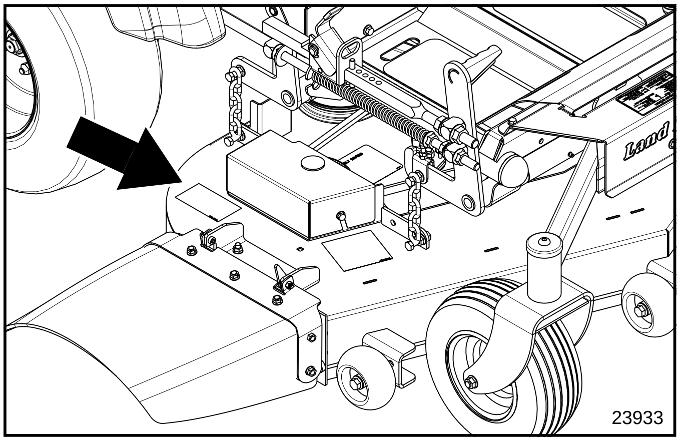
ROTATING BLADE HAZARD

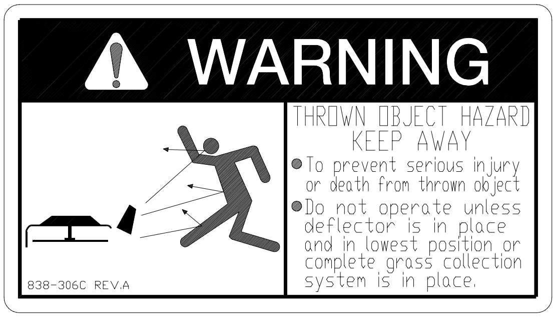
- Keep Away - Rotating Blades
- To prevent serious injury or death from thrown object:
- Do not operate with deflectors removed.
- Do not point discharge toward people, animals or buildings when operating.
- Do not place hands or feet under deck when operating or when engine is running.

SW800

838-308C

Warning: Rotating Blade Hazard




WARNING

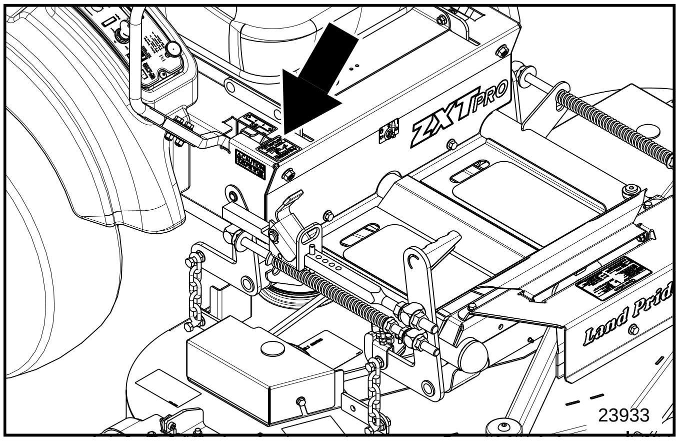
THROWN OBJECT HAZARD
KEEP AWAY

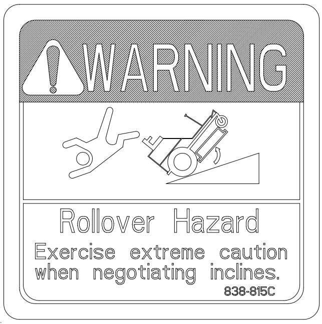
- To prevent serious injury or death from thrown object
- Do not operate unless deflector is in place and in lowest position or complete grass collection system is in place.

838-306C REV.A

838-306C

Warning: Do not operator without deflector




WARNING

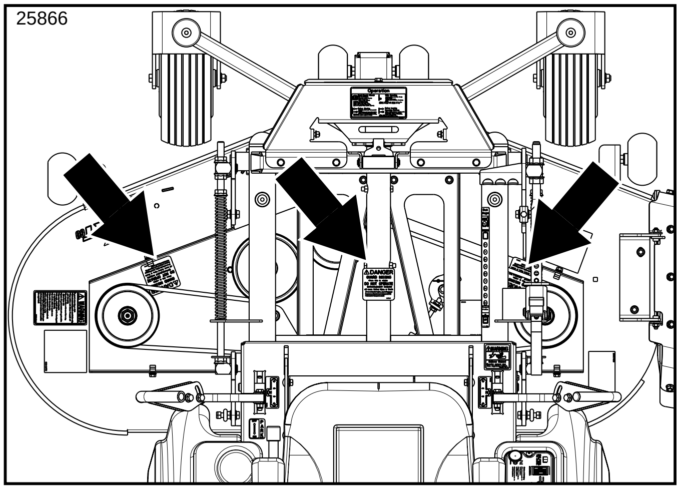
Rollover Hazard

Exercise extreme caution when negotiating inclines.

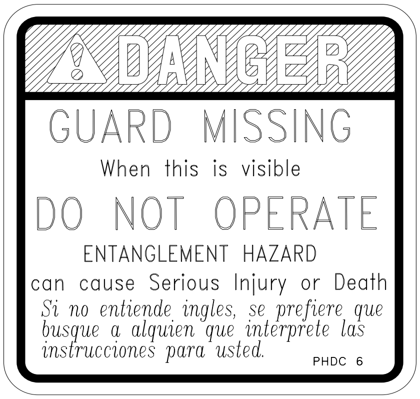
838-815C

838-815C

Warning: Rollover Hazard

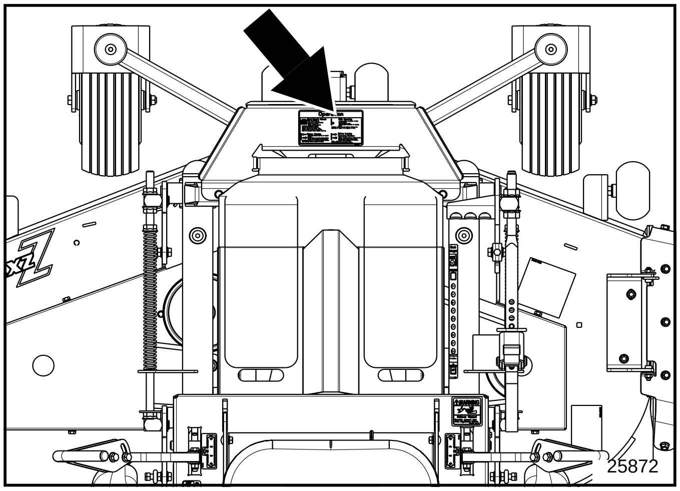


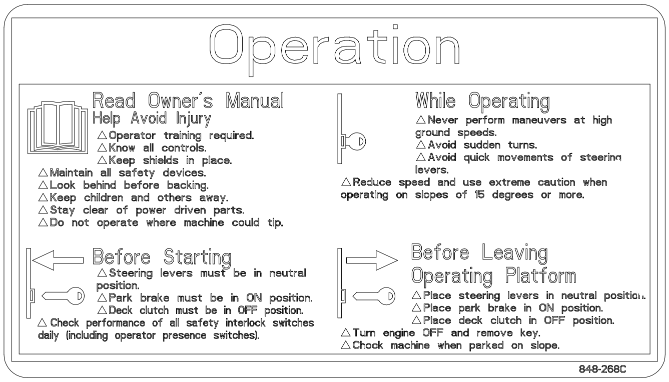
**Floor platform & Pulley Shields
have been removed to show decals**


DANGER
GUARD MISSING
When this is visible
DO NOT OPERATE
ENTANGLEMENT HAZARD
can cause Serious Injury or Death
Si no entiende ingles, se prefiere que busque a alquien que interprete las instrucciones para usted.
PHDC 6

818-543C

Danger: Guard Missing
3- Places




Operation

Read Owner's Manual
Help Avoid Injury
- △Operator training required.
- △Know all controls.
- △Keep shields in place.
- △Maintain all safety devices.
- △Look behind before backing.
- △Keep children and others away.
- △Stay clear of power driven parts.
- △Do not operate where machine could tip.

While Operating
- △Never perform maneuvers at high ground speeds.
- △Avoid sudden turns.
- △Avoid quick movements of steering levers.
- △Reduce speed and use extreme caution when operating on slopes of 15 degrees or more.

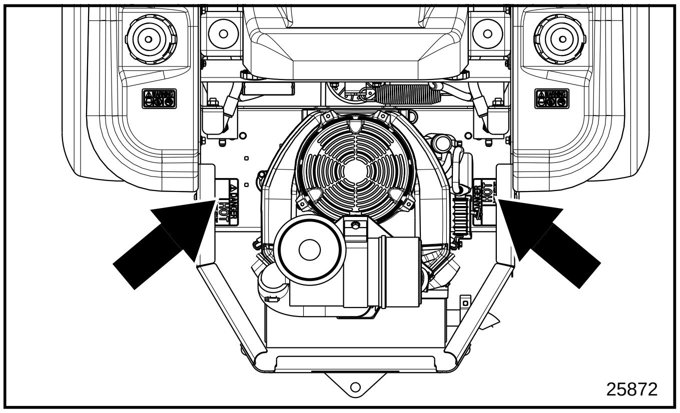
Before Starting
- △Steering levers must be in neutral position.
- △Park brake must be in ON position.
- △Deck clutch must be in OFF position.
- △Check performance of all safety interlock switches daily (including operator presence switches).

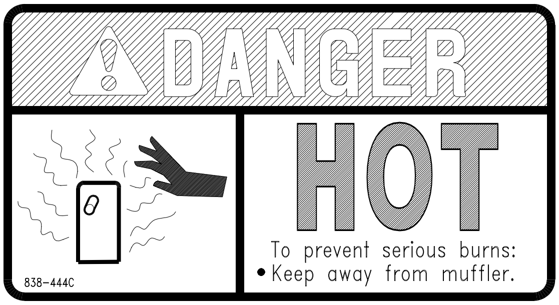
Before Leaving Operating Platform
- △Place steering levers in neutral position.
- △Place park brake in ON position.
- △Place deck clutch in OFF position.
- △Turn engine OFF and remove key.
- △Check machine when parked on slope.

848-268C

848-268C

Warning: Safe Operating Instructions




DANGER
HOT
To prevent serious burns:
- Keep away from muffler.

838-444C

838-444C

Danger: Muffler Hot
(Both Sides of Engine)

Land Pride welcomes you to the growing family of new product owners.

This mower has been designed with care and built by skilled workers using quality materials. Proper assembly, maintenance and safe operating practices will help you get years of satisfactory use from the machine.

Application

The Land Pride ZXT Pro Commercial Class Mower has mowing applications on farms, ranches, large estates, rural acreages, school campuses, theme parks, sports complexes, municipal parks, and industrial parks. These mowers are designed to meet the discriminating and cost conscious needs of customers who are looking for the increased productivity and reliability of a commercial grade mower.

The 54" and 60" cutting decks, high quality dual hydrostatic drive system components, proven performance engine offerings, incredibly strong frame construction, independent and isolated hydraulic reservoirs, floating front axle, and comfortable seating selections make the ZXT Pro Series a Zero Turn Mower that both high-end residential and commercial class customers will truly appreciate.

See “**Section 6: Specifications & Capacities**” on page 49 and “**Section 7: Features and Benefits**” on page 51 for additional information and performance enhancing options.

Using This Manual

- This Operator’s Manual is designed to help familiarize you with safety, assembly, operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.
- The information contained within this manual was current at the time of printing. Some parts may change slightly to assure you of the best performance.
- To order a new Operator’s or Parts Manual contact your authorized dealer. Manuals can also be downloaded, free-of-charge from our website at www.landpride.com or printed from the Land Pride Service & Support Center by your dealer.

Terminology

“Right” or “Left” as used in this manual is determined by facing forward while sitting in the operator seat unless otherwise stated.

Definitions

NOTE: A special point of information that the operator must be aware of before continuing.

IMPORTANT: A special point of information related to its preceding topic. Land Pride’s intention is that this information should be read and noted before continuing.

Owner Assistance

The Warranty Registration card should be filled out by the dealer at the time of purchase. This information is necessary to provide you with quality customer service.

If customer service or repair parts are required contact a Land Pride dealer. A dealer has trained personnel, repair parts and equipment needed to service the mower.

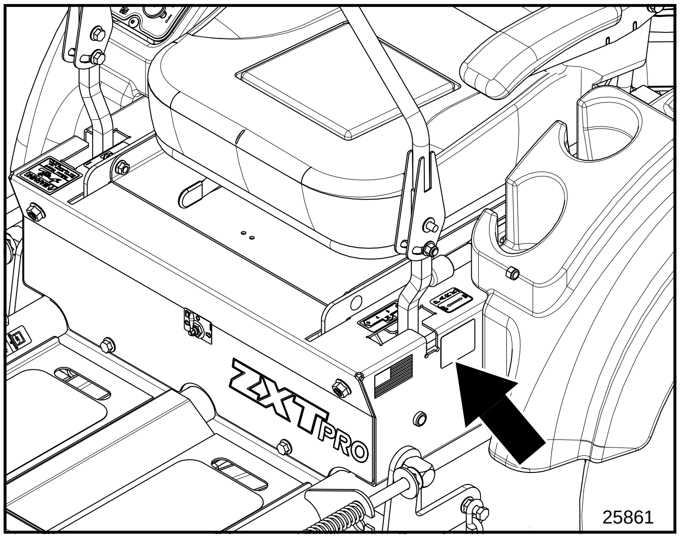
The parts on your mower have been specially designed and should only be replaced with genuine Land Pride parts. Therefore, should your mower require replacement parts go to your Land Pride Dealer.

For parts and service to your mower engine, contact your nearest engine dealer or call Customer Service Hotline provided below.

Owner’s Manual Part No.	
Honda - 24 HP	31ZJ4621
Kaswaski - 25 HP	99920-2145-10
Kaswaski - 31 HP	99920-2232
Briggs - 26 Hp	273521-5/99
Service Manual Part No.	
Honda - 24 HP	61ZJ410Z
Kaswaski - 25 HP	99924-2045-02
Kaswaski - 31 HP	99924-2089-01
Briggs - 26 Hp	276245-5/05
Service Hotline Phone No.	
Honda	1-770-497-6400
Kaswaski	1-800-433-5640
Briggs	1-800-999-9333

Serial Number Plate

For prompt service always use the serial number and model number when ordering parts from your Land Pride dealer. Be sure to include your serial and model numbers in correspondence also. Refer to Figure 1 for the location of your serial number plate.



Serial Number Plate Location
Figure 1

Further Assistance

Your dealer wants you to be satisfied with your new mower. If for any reason you do not understand any part of this manual or are not satisfied with the service received, the following actions are suggested:

1. Discuss the matter with your dealership service manager making sure he is aware of any problems you may have and that he has had the opportunity to assist you.
2. If you are still not satisfied, seek out the owner or general manager of the dealership, explain the problem and request assistance.
3. For further assistance write to:

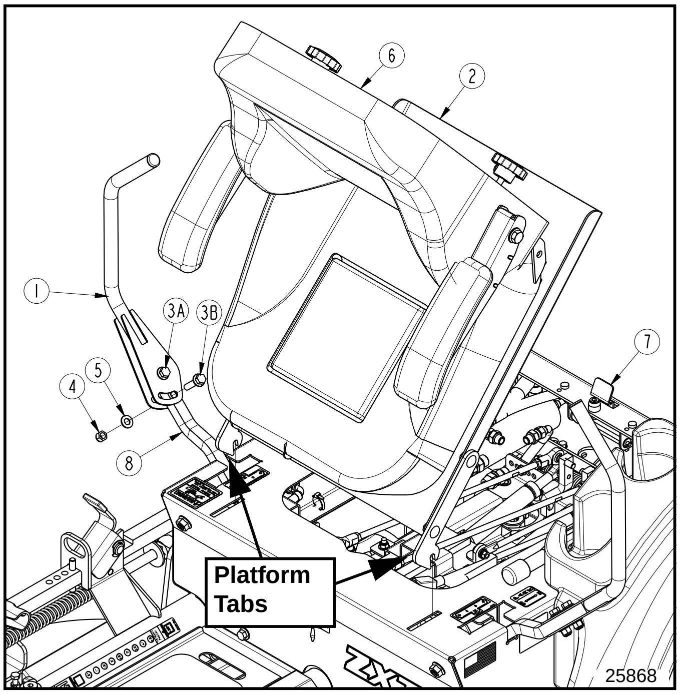
Land Pride Service Department
1525 East North Street
P.O. Box 5060
Salina, Ks. 67402-5060
E-mail address
lpservicedept@landpride.com

NOTE: For correct torque values, refer to "Torque Values Chart" on page 55.

Uncrating Instructions

The shipping crate is assembled together with nails. It can be disassembled by prying or cutting the lumber apart. Be careful not to scratch, dent or cut the mower and seat during disassembly. It is best if two people are present while disassembling the crate.

1. First remove 2 x 4 boards located above the mower and seat.
2. Remove seat by loosen the bottom two lag screws 2 turns. Remove the top lag screw and lift seat out of the crate.
3. Remove end and side panels from the crate.
4. Cut metal bands securing the front and rear wheels to the crate floor. Discard bands.
5. Complete assembly instructions and engine preparations below before driving mower off the crate floor.



Control Lever & Seat Assembly (Standard Seat Shown)
Figure 1-1

Control Lever Assembly

Refer to Figure 1-1:

Control levers (#1) are factory shipped rotated down and secured with control lever mounting bolts.

1. Loosen bolt (#3A) on upper right control lever (#1).
2. Remove bolt (#3B) from lower right control lever (#8).
3. Rotate control lever up until slot in upper control lever aligns with hole in lower control lever.
4. Reinstall 3/8"-16 1 1/2" GR5 hex head bolt (#3B), flat washer (#5) and 3/8" nylon lock nut (#4).
5. Repeat steps 1 to 4 for the left control lever.
6. Align control lever handles with each other and tighten bolts (#3A & #3B) to the correct torque.

NOTE: To make final control lever adjustments, see "Upper Control Lever Adjustments" on page 24.

Seat Assembly

Refer to Figure 1-1:

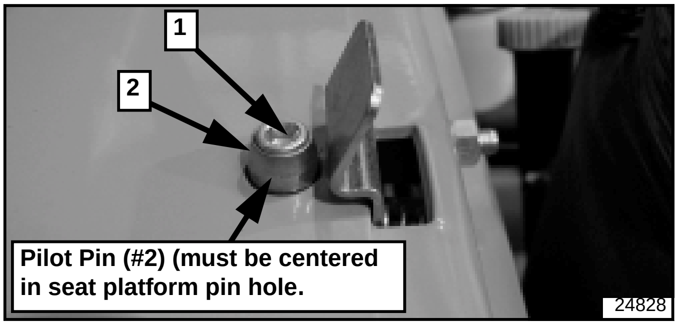
The seat (#6) is shipped factory mounted to the hinged seat platform (#2) and attached to the shipping crate with three lag bolts.

IMPORTANT: Be careful not to cut seat material when removing protective packing around the seat. **Cutting seat material will void its warranty**.

1. The seat should already be removed from the crate. If not, remove seat from crate end panel as outlined in step 2 in the "Uncrating Instructions".
2. Spread control levers (#1) fully apart before attaching the seat platform to the mower frame.
3. Pivot arm rest up.
4. Pivot back side of seat platform (#2) up about 45 degrees and insert platform tabs through slots in the mower and onto the pins just below the slots.
5. Connect mower switch wires to the seat switch located under the seat.

Refer to Figure 1-2:

6. Hinge seat platform down. The platform will latch automatically. The following must be done if the seat platform does not fit over the pilot pin (#2).
   a. Loosen 3/8"-16 hex socket head cap screw (#1).
   b. Adjust pilot pin (#2) to be centered in the seat platform pin hole.
   c. Tighten 3/8"-16 hex socket head cap screw (#1).
7. Being careful not to cut seat material, remove protective packing around seat.
8. See Seat Adjustment on page 25 for positioning the seat forward and rearward.



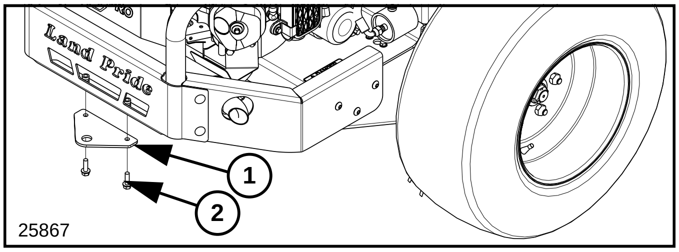
Seat latch Adjustment
Figure 1-2

Hitch Plate Assembly

Refer to Figure 1-3:

A hitch plate (#1) is supplied with the mower and is shipped turned around backwards and mounted to the rear bumper.

1. Remove two 5/16"-18 x 5/8" GR5 hex flange screws (#2) and hitch plate (#1) from under the bumper.
2. Rotate and reinstall hitch plate (#1) as shown with existing 5/16"-18 x 5/8" GR5 hex head flange screws.
3. Tighten 5/16" hex head flange screws (#2) to the correct torque.



Hitch Plate Assembly
Figure 1-3

> **IMPORTANT:** Do not pull a trailer or implement exceeding 300 pounds towing capacity and 50 pounds tongue weight. Loss of control may result. Do not make turns that will cause a trailer or implement being towed with the hitch to come in contact with the mower or damage may result.

Electrical Cable Connection

Refer to Figure 1-4:

WARNING

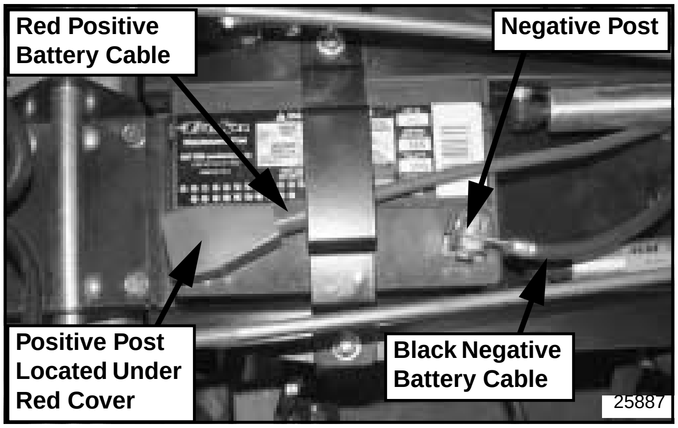
Incorrect battery cable connections can damage the mower's electrical system and cause battery cables to spark. Sparks around a battery can result in a battery gas explosion and personal injury.

- *Always **disconnect** negative (black) battery cable before disconnecting positive (red) cable.*
- *Always **reconnect** positive (red) battery cable to the positive **(+)** post before reconnecting negative (black) cable to the negative **(-)** post.*

WARNING

Keep battery terminals from touching any metal mower parts when removing or installing battery. Do not allow metal tools to short between battery terminals and metal mower parts. Shorts caused by battery terminals or metal tools touching metal mower components can cause sparks. Sparks can cause a battery gas explosion which can result in personal injury.

Connect black negative battery cable to the battery's negative post with 1/4"-20 x 3/4" GR5 hex head serrated screw, flat washer, lock washer and nut before starting the mower. Tighten hex nut to 8 ft-lbs. of torque.


Red Positive Battery Cable
Negative Post
Positive Post Located Under Red Cover
Black Negative Battery Cable
25887

Connecting the Negative Cable
Figure 1-4

> **IMPORTANT:** The negative battery cable is disconnected before leaving the factory and is to be disconnected after initial dealer set-up to prevent battery discharge while setting on the dealer lot.

Engine Preparations

1. Check engine oil level at the dipstick. Add oil if below full mark. **Do not overfill**. Refer to manufacturer's engine manual for oil recommendation and to "Engine Oil and Oil Filter" on page 39 in this manual.

> **NOTE:** Mowers are shipped from the factory with the fuel tanks empty.

2. Add gasoline with a fuel stabilizer to perform initial starting operations. See "Fuel System" on page 38 before adding fuel.

Remove Mower From Crate Floor

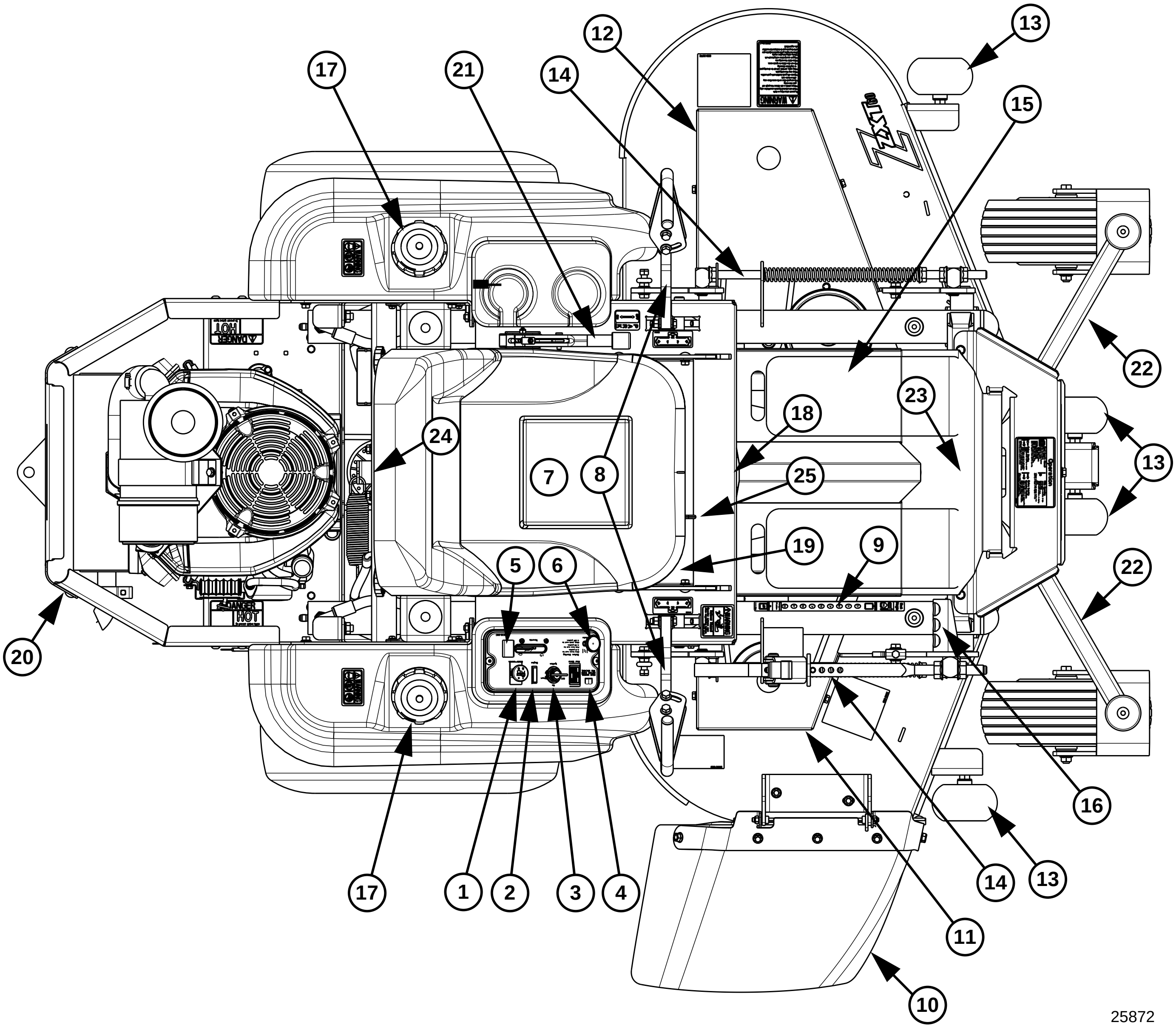
> **IMPORTANT:** Thoroughly read and understand "Section 2: Operating Procedures", pages 12 to 21 before starting and moving the ridding mower.

1. Make a ramp level with the crate floor down to ground that is heavy enough and wide enough for driving the mower over.
2. Check under the mower to make sure it is not banded to the crate floor. Remove any bands that are still present.
3. Make sure tire pressure in each tire is correct. See "Tire Inflation Chart" on page 55.
4. Follow all precautions and operating information provided in "Section 2: Operating Procedures" before starting and driving the mower off.
5. Raise deck fully up.
6. Start engine and drive mower forward off the crate floor.
7. Make necessary adjustments to the mower as outlined in "Section 3: Adjustments" beginning on page 22.

Mower Features

Refer to Figure 2-1:

Your ZXT Pro Zero Turn mower is designed with innovative and state-of-the-art features. Knowing the location and how these features work will make handling your mower more comfortable. Below is a list of major features to be reviewed in this section.



1. Blade Engagement Switch
2. Oil Pressure Light
3. Ignition Switch
4. Hour Meter
5. Throttle Lever
6. Choke Knob
7. Battery (Located under the seat)
8. Control Levers
9. Deck Height Indicator
10. Discharge Chute (Guard)
11. Right Deck Cover (Guard)
12. Left Deck Cover (Guard)
13. Anti-Scalp Wheels
14. Deck Adjusting Rod
15. Floor Platform (Guard)
16. Deck Lift Pedal
17. Fuel Caps & Tanks
18. Left/Right Fuel Tank Valve
19. Seat Platform (Guard)
20. Rear Bumper/Muffler Shield (Guard)
21. Park Brake Lever
22. Floating Pivot Axle
23. Front Pivot Axle Lock (Below Floor Platform)
24. Seat Release Latch
25. Seat Adjustment Latch

ZXT Pro Features
Figure 2-1

Operating Check List

Hazard control and accident prevention are dependent upon awareness, concern, prudence and proper training involved in operation, transport, maintenance and storage of the riding mower. Therefore, it is absolutely essential that no one operates the mower without first having read, fully understood and become totally familiar with the Operator's Manual. Make sure the operator has paid particular attention to:

- **Important Safety Information**, pgs. 1 to 7
- **Section 1: Assembly & Set-up,** pg. 10
- **Section 2: Operating Procedures**, pgs. 12 to 21
- **Section 3: Adjustments**, pgs. 22 to 29
- **Section 5: Maintenance & Lubrication**, pgs. 32 to 48

The following Operating Checklist should be performed before operating your mower:

Operating Checklist

✔	**Check**	Reference
	Read **"Important Safety Information"**	Page 1
	Read **"Operating Procedures"**	Page 12
	Lubricate mower as needed. Refer to *Lubrication.*	Page 47
	Check mower safety start interlock system daily prior to operation.	Page 16
	Check mower initially and periodically for loose bolts & pins, *Torque Values Chart*.	Page 55
	Make sure all guards and shields are in place.	Page 12
	Check blade for nicks and sharpness.	Page 44

Instrumentation

Engine Oil Pressure Light

Refer to to Figure 2-2:

This light comes on when ignition switch is placed in **RUN** position and stays lit until the engine is running with a safe oil pressure. Shut engine off immediately if light comes on during operation. Locate and correct the problem.

Hour Meter

Refer to Figure 2-2:

The hour meter registers 1/10 hour increments up to 9,999.9 total hours. The meter is connected to the ignition switch and records accumulative time only while the engine is running.

A plastic film covers the hour meter window to protect against scratches in shop assembly and shipping. This covering should be removed by the owner before placing mower into service.

Controls

For general location of controls described in this section, refer to Figure 2-1 on page 12 and Figure 2-2 below.

WARNING

Do not operate mower while smoking!

Ignition Switch

Refer to Figure 2-2:

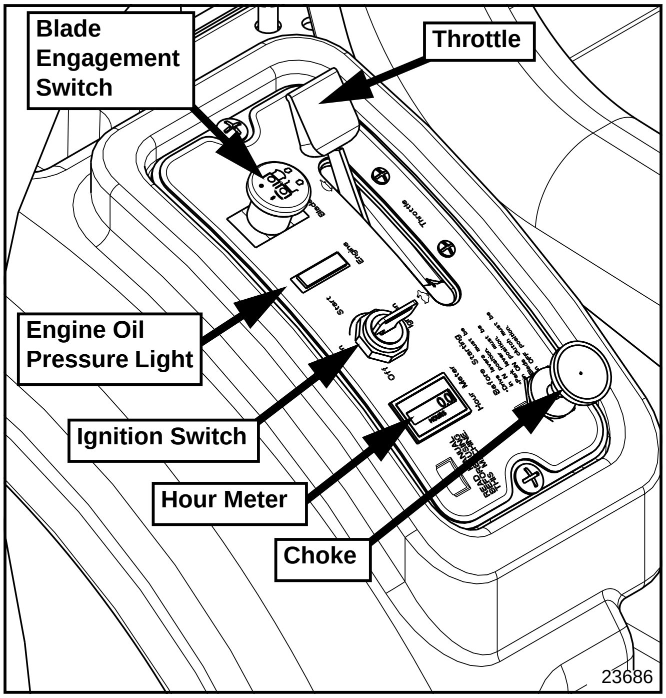
A three position ignition switch: off, run, and start is provided. With key inserted, rotate it clockwise to **START** position; release key when engine starts and switch will automatically return to **RUN** position. Turn key counterclockwise to **OFF** position to stop engine.

Throttle

Refer to Figure 2-2:

A cable is linked from engine to throttle for controlling engine speed. Move throttle lever forward to increase engine rpm and rearward to decrease rpm. Always travel and cut grass with throttle set at full engine rpm speed. Decrease travel speed by pulling back on the control levers. Slow engine rpm speed only if mower is not traveling and when powering the cutting blades only.

IMPORTANT: Always operate throttle at full engine rpm speed while traveling or cutting grass. Slow engine rpm may overheat the engine and hydraulic pumps.



Control Panel
Figure 2-2

Choke

Refer to Figure 2-2 on page 13:

A cable is linked from engine to choke knob for choking the engine during starting. When choke control knob is down, the choke is **(OFF)** (engine running position). When control knob is pulled up, the choke is **(ON)** (engine starting position). Shut choke **(OFF)** soon after engine has started.

IMPORTANT: DO NOT operate mower with the choke pulled up or on. (engine starting position).

Blade Engagement Switch

Refer to Figure 2-2 on page 13:

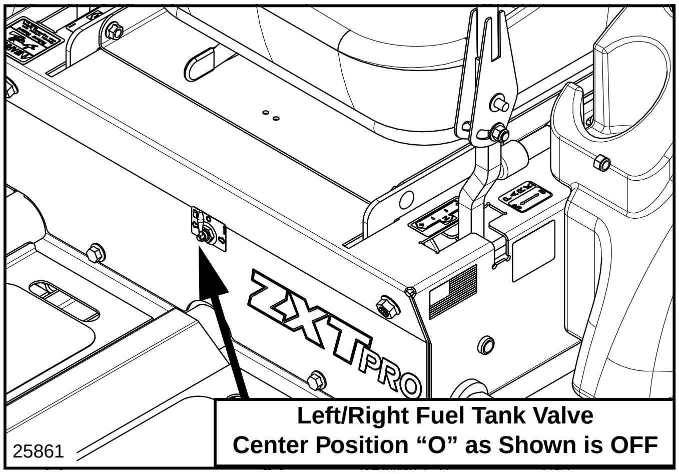
The blade engagement switch engages the deck blades. Pull switch up to engage blades **(ON)** and push switch down to disengage blades **(OFF)**.

IMPORTANT: Never engage blades with engine running at high rpm or when deck is under load. Clutch, belts or deck could be damaged.

Left/Right Fuel Tank Valve

Refer to Figure 2-3:

Located in front of the seat platform is the Left/Right Fuel Tank Valve. It controls which fuel tank is in use. The valve lever must be over one of the two arrows to supply fuel to the engine. Arrows point to the fuel tank being used. Switch valve from one tank to the other when tank in use is about out of fuel. The mower does not have to be turned off to make the switch. See “Fuel System” on page 38 for more information.



Left/Right Fuel Tank Valve
Center Position “O” as Shown is OFF

Left/Right Fuel Tank Valve
Figure 2-3

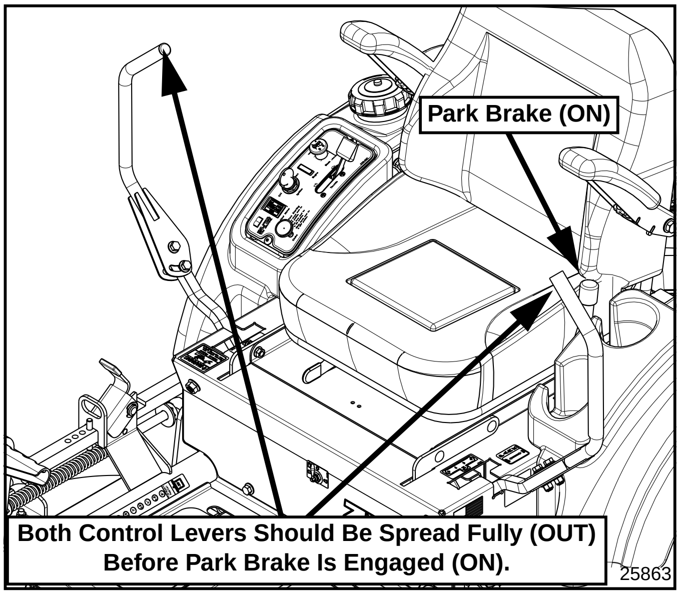
Park Brake

Refer to Figure 2-4 & Figure 2-5:

The park brake lever is linked to the wheel motors with two cables running from the lever to the motors. The rear wheels are kept from turning when the lever is pulled up and back to **(ON)**. Push the lever forward and down to take the park brake **(OFF)**.

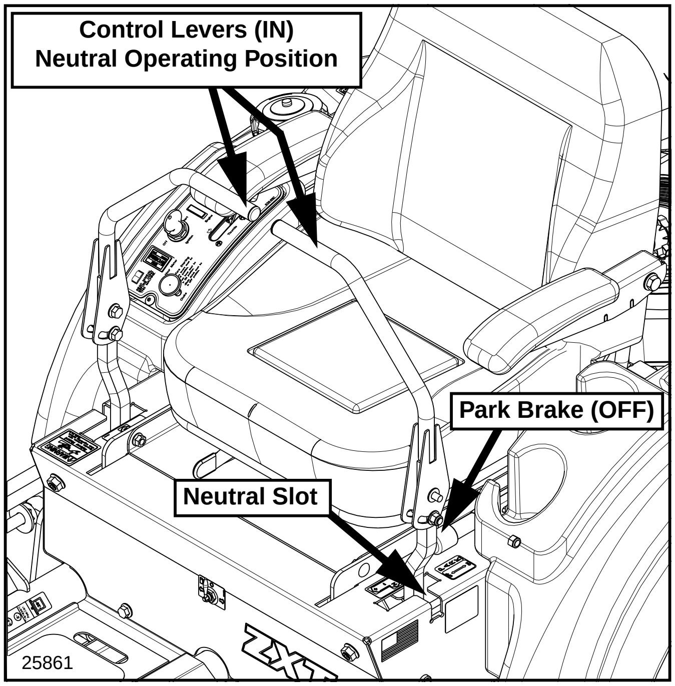
Mower engine will stop running if the park brake is set to **(ON)** before spreading both control levers **(OUT)** or if one or both control levers are moved **(IN)** before moving the park brake to **(OFF).**

IMPORTANT:
See “Park Brake Adjustment” on page 29 if the park brake does not hold the mower on an incline or if the park brake lever pulls hard (15 lbs. or more) when setting the park brake **(ON)**. Park brake lever should pull easily with only a small amount of resistance or the wheel motors can be damaged.



Both Control Levers Should Be Spread Fully (OUT) Before Park Brake Is Engaged (ON).

Control Levers Fully OUT (in Park Position)
Figure 2-4



Control Levers Fully IN (In Neutral Position)
Figure 2-5

Control Levers

Refer to Figure 2-4 & Figure 2-5 on page 14:

The control levers are used to steer, accelerate, decelerate, stop and change direction of travel.

Always move both control levers to neutral and **(OUT)** before setting the park brake **(ON)**. Always leave park brake and control levers in this position until ready to start traveling. Move park brake to **(OFF)** before pulling control levers **(IN)**. Start moving by moving control levers either forward or rearward from neutral position.

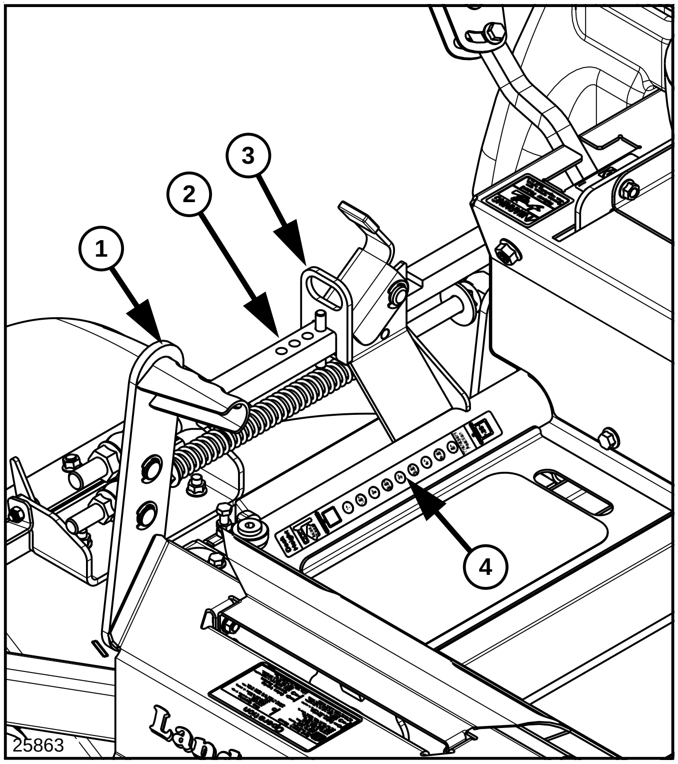
See “Driving the Mower” on page 16 for a detailed description of operating the control levers.

Deck Lift Pedal

Refer to Figure 2-6:

The deck lift pedal is used to raise and lower the mower deck when setting the deck to the desired cutting height.

1. Push in on deck lift pedal (#1) with your right foot to raise deck fully up.
2. Use deck height indicator (#4) to locate desired cutting height pin hole (#2). Place deck height locking pin (#3) into the selected cutting height pin hole (#2).
3. With your right foot, let up on deck lift pedal (#1) slowly to lower deck gently against locking pin.



Deck Lift Pedal
Figure 2-6

When going over obstructions, push deck lift pedal to raise deck up. Go around obstruction if deck will not raise high enough. **Never mow over obstructions you are not certain the deck will clear**.

Engine Starting

The safety start interlock system is designed to prevent runaway or accidental entanglement.

IMPORTANT: The starting motor will engage only if the blade engagement switch is **(OFF)**, control levers are **(OUT)** and park brake is **(ON)**.

The following steps are correct procedures for starting the engine. If difficulty is encountered, contact your local Land Pride Dealer.

1. Before starting the engine, make sure:
   a. Blade engagement switch is **(OFF)**.
   b. Both control levers are positioned **(OUT)**.
   c. Park brake is **(ON)**.
2. Set speed control to approximately 1/2 open throttle.

IMPORTANT: Use choke when engine is cold or if warm and engine fails to start after 5 seconds of cranking. Avoid engine flooding by pushing choke control knob to **(OFF)** as soon as possible.

IMPORTANT: The engine starter should not be operated for periods longer then 30 seconds at a time. An interval of at least two minutes should be allowed between such cranking periods to protect the starter from overheating and burn-out.

3. Insert key in ignition switch and rotate clockwise to engage starting motor. Release key when engine starts.
4. Perform test to make sure safety start interlock system is operating properly. Refer to **“Safety Start Interlock System”** on Page 16.
5. As soon as engine begins to run, check to make certain oil warning light is off. If not, stop engine immediately and check for the cause. Refer to **“Troubleshooting”** on page 53.
6. Allow engine to idle a few minutes to warm up before operating the mower.

Engine Shut-Down Sequence

It is always best to go through proper shut-down sequence before turning ignition switch key off. Not following this sequence in the correct order will cause the engine to stop running immediately.

1. Shut blade engagement switch **(OFF)**.
2. Move both control levers to neutral and **(OUT)**.
3. Throttle engine back to a low idle and wait for one minute to allow accumulated raw fuel to escape muffler during engine slow down.
4. Position park brake **(ON)**. (Pull up on lever until it stops.)
5. Rotate ignition key counter-clockwise to **(OFF)**.
6. Remove key from ignition switch.

Safety Start Interlock System

The mower is equipped with a safety start interlock system consisting of blade engagement switch, seat switch, park brake switch and control lever switches. This system is an important safety feature designed to prevent runaway or accidental entanglement.

> **IMPORTANT:** The starting motor will engage only if the blade engagement switch is **(OFF)**, control levers are **(OUT)** and park brake is **(ON)**.
>
> After the mower has started and the operator is seated, the park brake can be moved to **(OFF)** and control levers moved **(IN)** in that order or the engine will stop running. The blade engagement switch can be pulled **(ON)** only after both control levers are **(IN)**.
>
> Park brake position **(ON)** or **(OFF)** does not stop engine from running when becoming unseated. However, the engine will stop running if the operator gets off the seat with one or both control levers **(IN)** or if the blade engagement switch is **(ON)**.

The safety start interlock system should be checked daily prior to operation and repaired immediately if it malfunctions. Inspect system as follows:

> **IMPORTANT:** The operator must be on the seat when testing the switches. Contact your local Land Pride Dealer if the problem cannot be resolved.

1. Start mower engine per instructions in the section on “Engine Starting” on page 15. Allow engine to warm up to operating temperature.
2. With blade engagement switch **(OFF),** control levers spread fully **(OUT)** and park brake **(ON)**, slowly raise off the seat. The engine should continue to run.

Blade Engagement Switch

1. With engine running and operator sitting on the seat, move park brake **(OFF)**, pull both control levers **(IN)** and then turn blade engagement switch **(ON)**.
2. Replace blade engagement switch if blades did not run and no other cause such as damaged wiring can be determined.

Seat Switch

1. With conditions met is step 1 above, slowly raise off the seat. The engine should stop within five seconds.
2. Replace seat safety switch if switch did not operate properly and if no other cause can be determined.

Park Brake Switch

1. Turn blade engagement switch **(OFF)** and move control levers **(OUT)**. Park brake must be **(OFF).**
2. Try restarting the engine. The starter motor should not turn.
3. Replace park brake switch if starter motor did turn and if no other cause can be determined.

Control Lever Switches

1. With blade engagement switch **(OFF),** control levers spread fully **(OUT)** and park brake **(ON)**, restart engine.
2. With park brake **(ON)** and blade engagement switch **(OFF)**, pull right control lever in. The engine should stop within five seconds.
3. Replace right control lever switch if switch failed to operate properly and if no other cause can be determined.
4. Return control arm to original setting and restart engine.
5. With park brake **(ON)** and blade engagement switch **(OFF)**, pull left control lever in. The engine should stop within five seconds.
6. Replace left control lever switch if switch did not operate properly and if no other cause can be determined.
7. Follow “Engine Shut-Down Sequence” on page 15 to turn off the mower.

Driving the Mower

DANGER

Never make sudden stops or sudden reversing of travel direction, especially when going down a slope. The steering is designed for sensitive response. Rapid movement of control levers in either direction could result in a reaction that can cause serious injury.

DANGER

Never make sudden speed changes from reverse to forward. Always push control levers forward gently to avoid sudden change in speed. Any sudden forward speed change can cause the front wheels to raise off the ground resulting in loss of control, mower damage and/or personal injury.

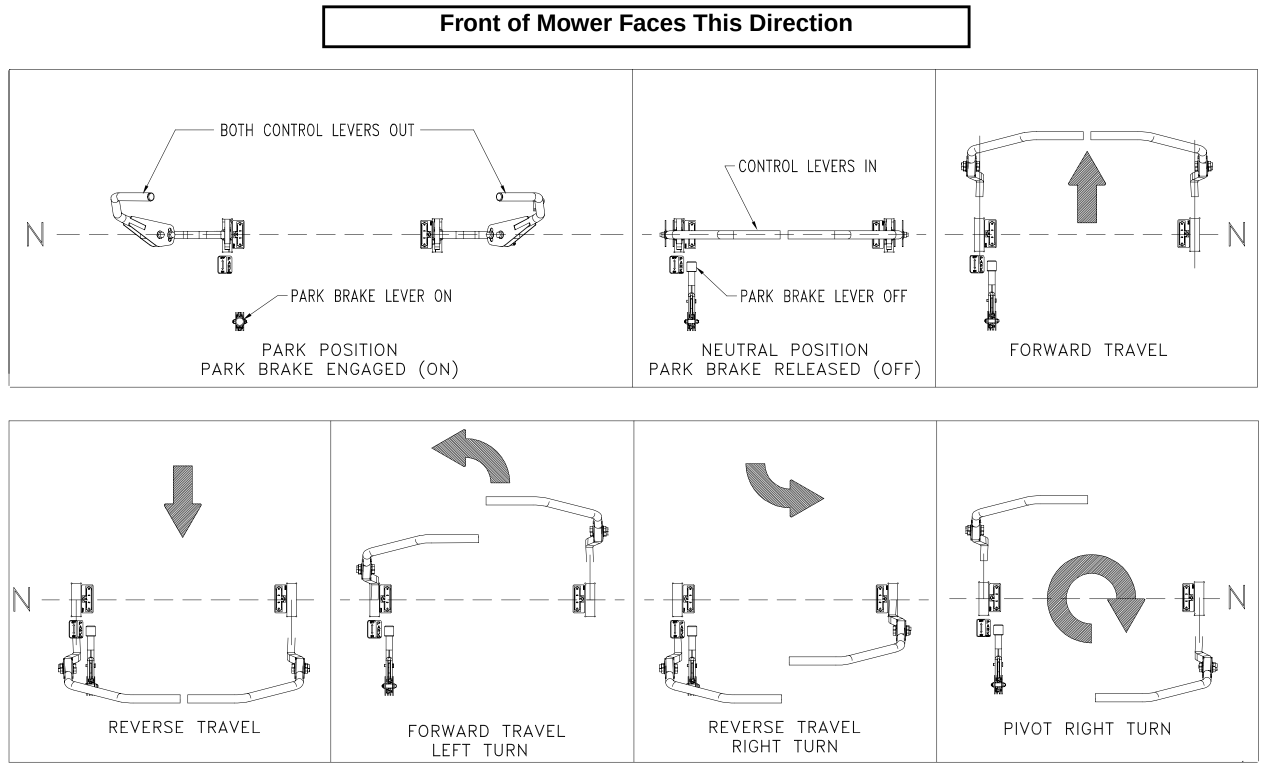
To Start and Increase Speed

Refer to Figure 2-7 on page 17:

After starting the engine, release park brake and engage control levers by moving handles fully **(IN)**. This makes the levers ready for steering while traveling.

Moving control levers an equal distance away from neutral will increase travel speed.

- Start forward travel by gently pushing on the control levers. The further forward the control levers are pushed the faster the travel speed.
- Start backing up by gently pulling on the control levers. The further back the control levers are pulled the faster the travel speed.


Front of Mower Faces This Direction
BOTH CONTROL LEVERS OUT
N
PARK BRAKE LEVER ON
PARK POSITION
PARK BRAKE ENGAGED (ON)
CONTROL LEVERS IN
PARK BRAKE LEVER OFF
NEUTRAL POSITION
PARK BRAKE RELEASED (OFF)
N
FORWARD TRAVEL
N
REVERSE TRAVEL
FORWARD TRAVEL
LEFT TURN
REVERSE TRAVEL
RIGHT TURN
N
PIVOT RIGHT TURN
25880

N = Neutral Position
Direction of arrows indicate direction of mower movement.

Figure 2-7

To Decrease Speed and Stop

WARNING

In the event of a system shutdown while mowing, move control levers to neutral and spread them fully apart. See Figure 2-4 on Page 14. Also, engage the park brake lever to aid in slowing and stopping the mower.

Refer to Figure 2-7 on page 17:

Moving control levers an equal distance towards neutral will decrease travel speed.

- When moving forward, pull back gently on control levers to decrease speed. The further back the control levers are pulled the slower the travel speed until neutral is reached.
- When backing up, push forward gently on control levers to decrease speed. The further forward the control levers are pushed the slower the travel speed until neutral is reached.
- Move control levers to neutral to stop.
- Spread both control levers fully apart and engage the park brake.

To Steer

Refer to Figure 2-7 on page 17:

- To Steer Straight While Traveling Forward:

  Push control levers forward an equal distance.
- To Steer Straight While Backing Up:

  Pull control levers rearward an equal distance.
- To Turn Left While Traveling Forward:

  Move right control lever farther forward from neutral than the left control lever.
- To Turn Left While Backing Up:

  Move right control lever farther back from neutral than the left control lever.
- To Turn Right While Traveling Forward:

  Move left control lever farther forward from neutral than the right control lever.
- To Turn Right While Backing Up:

  Move left control lever farther back from neutral than the right control lever.
- To Make A Pivot Turn:

  Move one control lever forward and the other control lever back of neutral, this will allow the drive wheels to counter-rotate.

Moving Mower with Stalled Engine

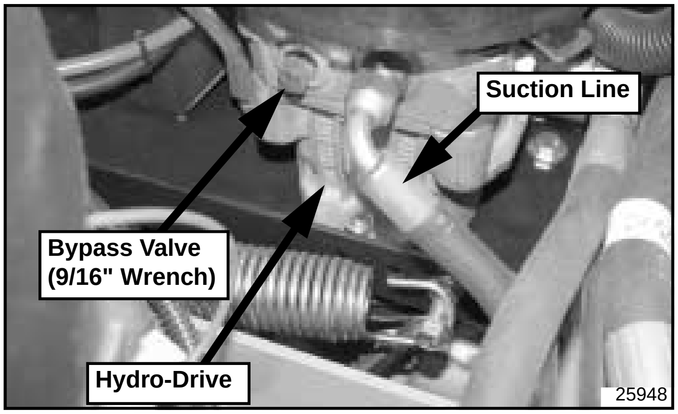
Refer to Figure 2-8:

Located under the seat and in line with the rear wheels are two hydro-drives. One on the right side and one on the left side. Each hydro-drive is equipped with a bypass valve for moving the mower manually when the engine is inoperable. The bypass valve is located on the back side of the pumps just left of the suction line and is identified as a hex brass stud. Before moving mower manually:

1. Loosen bypass valves with a 9/16" wrench. Turn hex brass stud counter clockwise two full turns.
2. Position both control levers in neutral with handles fully apart.
3. Release park brake lever.
4. Mower rear wheels should now turn freely.

IMPORTANT: Do not tow the machine. Move it by hand or use a winch and load it on a trailer.

IMPORTANT: After making necessary repairs and before operating the mower, retighten the two bypass valves to 84-104 in-lbs. of torque.



Bypass Valve (Right Side Shown)
Figure 2-8

Safe Operating Instructions

The safe operation of any machinery is a big concern to all consumers. Your Zero Turn Riding Mower has been designed with many built-in safety features. However, no one should operate this mower before carefully reading this Operator's Manual. Also read all instructions noted on the safety decals.

- ▲ Be familiar with all functions of this mower.
- ▲ Do not operate a mower with damaged parts. Repair all damaged parts before putting mower back in to service.
- ▲ Keep all bystanders away from this mower during operation.
- ▲ Do not allow anyone to operate this mower who has not fully read and comprehended this manual and has not been properly trained in the safe operation of this mower.
- ▲ Do not allow anyone under 16 years of age to operate this mower.
- ▲ No riders allowed. Carrying a rider can result in injury and/or death to the rider and operator.
- ▲ Do not operate mower while drinking or under the influence of alcohol or drugs.
- ▲ Always park on level ground, place both control levers in neutral and fully apart, set park brake and remove ignition key before leaving the mower.
- ▲ Do not leave mower unattended with engine running.
- ▲ Always operate mower with belt guards installed. Do not leave pulleys and belts exposed.
- ▲ Wear snug-fitting clothing to avoid entanglement with moving parts.
- ▲ Keep hands, feet, long hair, clothing and jewelry away from moving parts and obvious pinch points to avoid getting caught.
- ▲ Always be aware of and avoid tree limbs and brush that have a potential of hitting and/or poking the operator while riding the mower. Serious bodily harm could result.
- ▲ Always wear long pants, safety glasses and safety shoes. Some conditions may warrant extra safety gear to be worn such as safety helmets.
- ▲ Do not touch engine, engine exhaust pipe and/or muffler while they are hot.
- ▲ Use extreme caution when driving through dry grass, brush and other fire hazard materials. Never stop or park over combustible materials. Keep grass and brush from collecting on and around engine and muffler parts.
- ▲ Battery fumes are explosive. A spark will ignite battery fumes. Wear a face shield when charging or jumping a battery. Follow all battery safety rules outlined in this manual.
- ▲ Avoid battery acid spills. Do not get battery acid on eyes, face, or other body parts. Flush eyes and other body parts immediately with water for at least 15 minutes if battery acid has gotten on them.
- ▲ Do not operate this mower on streets, highways, public roads, or where it may be a hazard to faster moving traffic.
- ▲ Never attempt wheelies, jumps, or other stunts. Never drive recklessly. Always operate your mower at a safe speed that will allow you to maintain control.
- ▲ Never modify engine RPM, or any parts on the mower without authorization. Unauthorized modifications will void warranty to all parts directly and indirectly affected by the modification.
- ▲ Do not pull a trailer or implement exceeding a gross weight of 300 pounds and 50 pounds tongue weight. Loss of control may result. Do not make turns so sharp as to cause trailer or implement being towed to come in contact with the mower. Damage may result.

- Do not attach an implement, trailer or other device to the hitch that will produce negative tongue weight.
- Do not tow the mower with its wheels on the ground. Always tow the mower loaded on a trailer.
- Use extreme caution when cresting hills or when visibility is limited. Proceed slowly until you are sure conditions immediately ahead are safe.
- Reduce speed on hilly, rough, wet, slick or unstable ground. Do not operate mower on slopes over 15°.
- Do not operate mower at night. With poor visibility, night operation can lead to a serious accident.
- When refueling use a UL listed container that has a screen or filter. Set container on the ground before fueling to eliminate static discharge. Do not use Methanol fuel.
- Do not smoke or use electrical devices including cell phones while refueling.
- Always maintain proper tire inflation. See “Tire Inflation Chart” on page 55.
- Always disconnect the negative battery terminal before making adjustments to the mower electrical system or welding on this mower.
- Always check wheel lug nut torque values two hours after initial operation and two hours after each tire repair and/or replacement. Routinely check lug nut torque valves every 50 hours of operation. See “Torque Values” on page 22.
- Support this mower securely before working beneath. Chock wheels to prevent mower from rolling.

DANGER

Prior to operating the mower the operator should be thoroughly familiar with the proper use and operation of the equipment, should read the manual completely and thoroughly, and should have attempted slow moving maneuvers to become familiar with the operation of the equipment before attempting normal speed operation. An inexperienced operator should not mow on slopes or on uneven terrain.

WARNING

Do not operate the mower while wearing any type of loose fitting clothing. Always wear safety glasses, clothing that does not hang loosely, and shoes or boots when operating this machine.

WARNING

The tailpipe and muffler are very hot and can ignite dry grasses, brush and other flammable materials. Always keep area around the muffler and tailpipe clear of debris. Allow the muffler and tail pipe to cool completely before removing any debris to prevent sever burns to the body.

WARNING

Never direct discharge of material from mower deck towards bystanders.

WARNING

Never operate the mower deck with discharge chute removed or in the raised position.

WARNING

Always check area to be mowed for rocks and other debris before mowing.

The mower’s control levers are very responsive. For smooth operation, move levers slowly, avoid sudden movement. Skill and ease of operation come with practice and experience.

Inexperienced operators may have a tendency to over-steer and lose control. Slow-moving practice maneuvers are recommended to become familiar with these characteristics before attempting normal speed operation.

Sharp depressions or raised obstacles (such as gutters or curbs) should not be directly approached at high speed in an attempt to jump them as the operator could be thrown from the mower. Approach at a slow speed and angle one drive wheel at the obstruction. Continue at an angle until both wheels clear the obstruction.

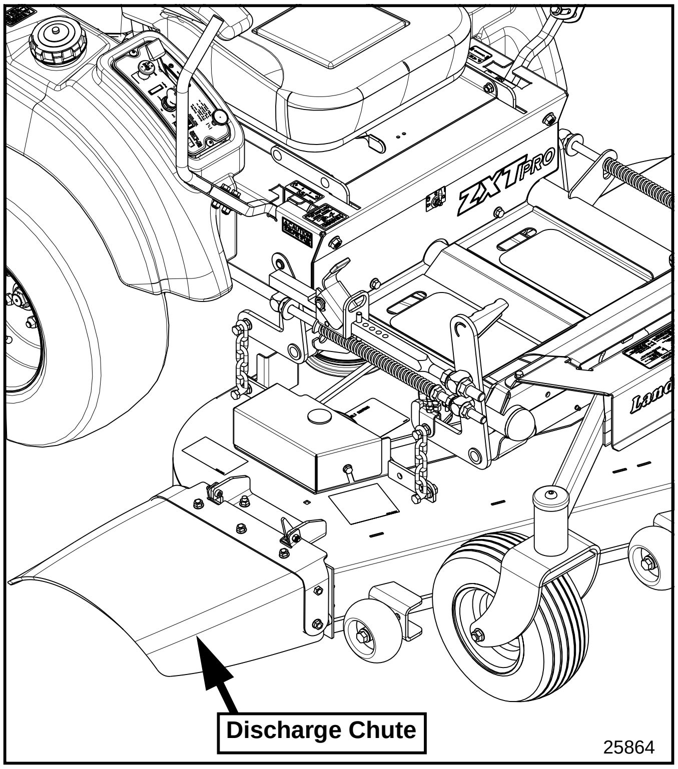
When turning on soft wet turf, keep both wheels rolling either forward or backward. Pivoting on a stopped wheel can damage the turf.

Peak mowing performance is maintained when the throttle is set at full rpm. This gives maximum power to the drive wheels and deck when needed. Use control levers to control ground speed rather than engine rpm.

Keep blades sharp. Many problems with incorrect cutting patterns are due to dull blades or blades which have been sharpened incorrectly. Information on sharpening blades is listed in this manual’s maintenance section. In addition, most communities have individuals or companies which specialize in sharpening mower blades. Blade sharpness should be checked daily.

Use high blade speed. Your ZXT Pro is designed to operate at full throttle. The throttle setting directly controls blade speed. The highest blade speed generally gives the best cut.

Select a mowing pattern that discharges cut grass away from uncut grass. Generally, this means using a pattern utilizing left turns because the mower discharges cut grass to the right. Refer to Figure 2-9 on page 20. In any case, avoid discharging cut grass onto an unmowed area because grass is then mowed twice. Mowing twice puts an unnecessary load on the mower and reduces mowing efficiency.



Discharge Chute
Figure 2-9

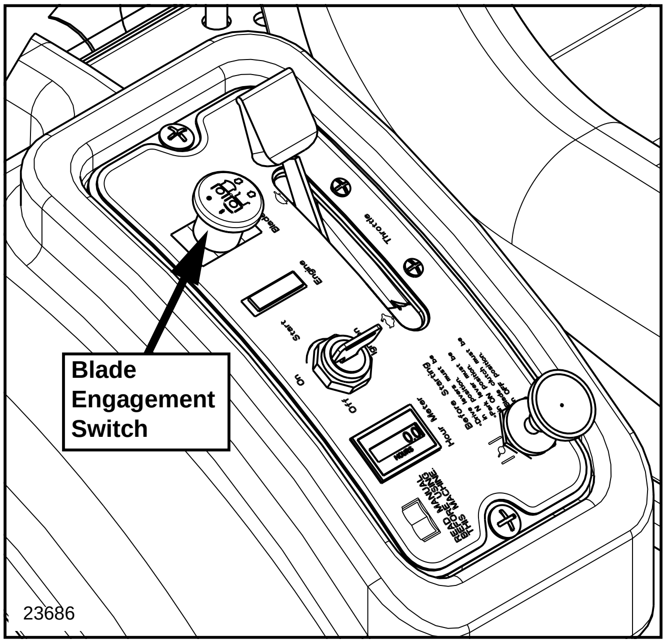
Mower Deck Operation

DANGER

Never attempt to make any adjustments to the mower deck while the engine is running or when the blades are engaged. Mower blades cannot be seen and are located very close to deck housing. Fingers and toes can be cut off instantly.

With engine running at medium speed, pull up on blade engagement switch to start blades turning. (Refer to Figure 2-10). Increase engine throttle to full rpm once blades have become fully engaged.

> **NOTE:** Engaging blades at high engine rpm or when under heavy load (i.e. tall grass) can cause belts to slip, resulting in premature wear or possible damage.



Blade Engagement Switch
Figure 2-10

General Operating Information

After thoroughly familiarizing yourself with the Operator's Manual and completing the Operator's Checklist, you are almost ready to begin mowing.

You may want to put the front axle in float mode which will significantly smooth out the ride and deliver improved traction capability over uneven ground. The front axle can be quickly put back into rigid mode if you need to keep the deck up when doing overhanging cuts along curbs or other landscape obstacles.

CAUTION

Mower deck and operator platform can be slippery when wet. Always make sure your footing is secure when climbing onto the mower to be seated.

Approach the mower from the front and spread the steering levers fully apart. Stand just to the outside rear of the left front anti-scalp wheel and with your right hand grab the left side steering lever for support. Taking care not to slip on the mower deck, step up onto the operator's platform and comfortably seat yourself. The park brake lever just to your left and adjacent to the operator's seat should be fully raised and in the (ON) position. With both steering levers still wide apart now reach for the throttle and choke control to your right side. Position the throttle control at half throttle and pull the choke to the "up/on" position. Insert your ignition key and rotate the ignition key clockwise until you hear the engine begin to start. Release the ignition key and push the choke to "down/off" position. Allow the engine to warm up momentarily. If your mower has just been running and the engine is already warm, using the choke is probably not necessary.

With the engine at half throttle, release the parking brake by pushing the lever forward and down all the way. Then reach forward and bring both steering levers equally together in the neutral position just in front of you. It's now time to test your steering skills. Gently push both steering levers equally forward. The farther forward you push the levers the faster you will go. Pull back equally and you will slow down coming to a stop when you reach the neutral position. Now slowly pull the levers back toward your body past neutral position. The mower will reverse direction and increase in speed as you pull further back. If you push one lever forward and pull one lever back the mower will do a zero turn in the direction of the steering lever closest to your body. Now take a few moments in a safe area to practice maneuvering and steering your mower with the engine still at half throttle. Gradually increase your throttle speed until you feel totally confident of your mower steering and handling ability around obstacles and in tight areas.

It's now time to cut the grass. Hopefully, you have already removed any obstacles from the lawn that you do not want run over. With your mower at half throttle, place your right foot on the deck lift pedal and release and lower the deck to your preset cutting height. With your right hand, pull up on the cutting blade engagement knob and increase the engine speed to full throttle. You may now begin mowing.

When you are done mowing or just want to take a break, make sure you do all of the following.

- Park on level ground if possible.
- Disengage the cutting blades.
- Throttle back.
- Place steering levers in wide-open neutral position.
- Engage park brake lever.
- Turn engine off and remove switch key.
- Step carefully off the left front corner of the operator's platform.
- You may want to chock the wheels as an added measure of safety, if and when you must park on an incline.

In the unlikely event that you lose electrical power and the ZXT shuts completely down, you will lose hydrostatic steering and hydrostatic braking capability. The parking brake should be immediately engaged. Should the engine fail for any reason and you need to push or pull the unit a short distance for loading or servicing, make sure you open bypass valves on the pumps.

The ZXT54 and ZXT60 by Land Pride are commercial duty mowers designed to deliver professional cutting quality, while delivering high productivity and sustained comfort over extended periods of operation. With just a little bit of practice you should become very good at operating your mower. See the “Features and Benefits” section of this manual for additional product information and performance enhancing options.

WARNING

Unless specifically required, DO NOT have engine running when servicing or making adjustments to the mower. Place both control levers in the park position and remove ignition switch key. Read and observe safety warnings in front of manual.

Repairs or maintenance requiring engine power should be performed by trained personnel only. To prevent carbon monoxide poisoning, be sure proper ventilation is available when engine must be operated in an enclosed area.

Your ZXT Pro mower was adjusted before it left the factory and checked for proper operation during pre-delivery set-up. However, break-in wear and continued use can cause some adjustments to change.

- Be alert for unusual noises while operating the mower. They could be signaling a problem.
- Visually inspect for abnormal wear or damage while servicing and making adjustments to the mower.

Proper servicing and adjustment is the key to the long life of any implement. With careful and systematic inspection, you can avoid costly maintenance, time and repair.

WARNING

Keep your machine clean. Remove heavy trash deposits and clippings from the machine. Keep all moving parts, hydraulic system, engine cooling system and exhaust system clean of trash and clippings. Accumulation of trash and/or clippings can cause fires, hydraulic overheating and excessive belt wear.

Clear away heavy build-up of grease, oil and dirt, especially in the area of oil, fuel and engine combustion air inlets and openings. Minute dust particles are abrasive to close-tolerance engine and hydraulic assemblies.

Some repairs require the assistance of a trained service mechanic and should not be attempted by unskilled personnel. Consult your Land Pride service center when assistance is needed.

Torque Values

WARNING

Particular attention must be given to tightening the drive wheel lug nuts and blade spindle bolts. Failure to correctly torque these items may result in the loss of a wheel or blade, which can cause serious damage or personal injury.

NOTE: Refer to "Torque Values Chart" and “Additional Torque Values” on page 55 for correct torque values.

It is recommended that the following be checked after the first 2 hours of initial operation, and every 50 hours following removal for repair or replacement:

- Wheel lug nuts
- Wheel motor nuts
- Blade bolts
- For engine torque values, see engine owner’s manual.

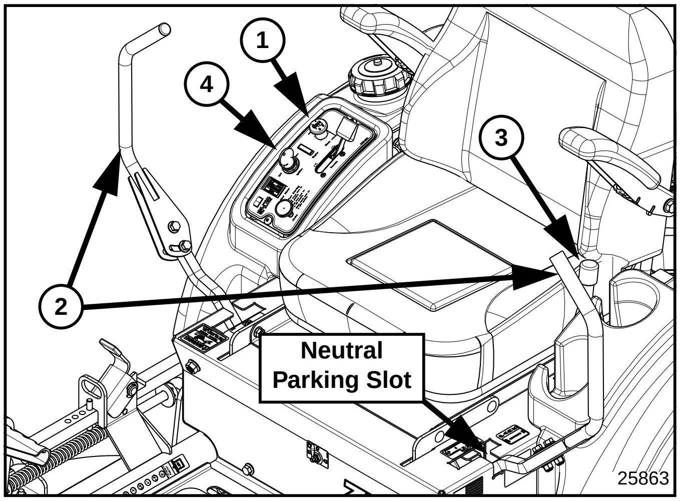
Steering Adjustments

The steering levers on the mower may over time require readjusting to operate smoothly. Also, there are some adjustments that can made now that will make operating the mower more comfortable.

Neutral Creep Adjustment

The steering has been factory adjusted to stop neutral creep. Neutral creep is when a drive wheel rotates under power while the control levers are in neutral. Eliminate neutral creep by adjusting the length of the steering linkage rods.

Before making any adjustment, make certain hydraulic oil temperature is at operating levels and tire pressure is at the specified psi. Unequal tire pressure can cause the mower to drift to one side. Refer to “Tire Inflation Chart” on page 55.



Control Levers In Neutral Position
Figure 3-1

Refer to Figure 3-1:

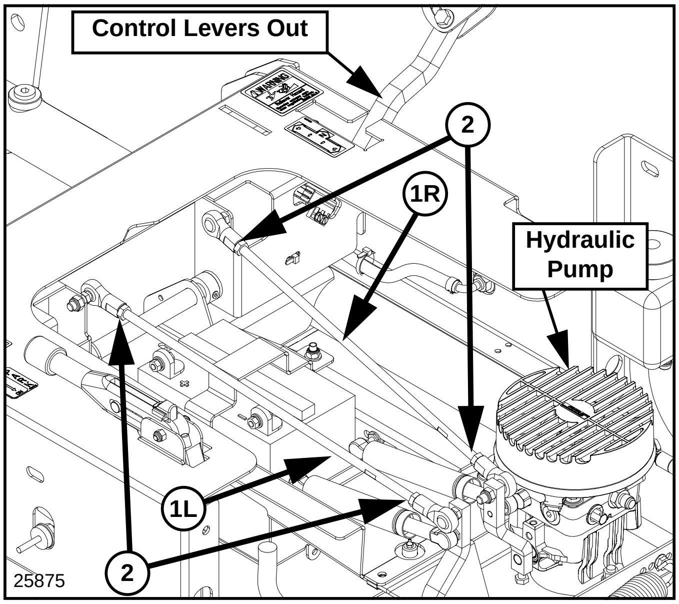
Adjust steering linkage rods as follows:

WARNING

Make certain mower is secure when placed on jack stands. Jack stands should not allow mower to move when engine is running and drive wheels are rotating. Use only certified jack stands.

1. Make sure blade engagement switch (#1) is **(OFF)**, control levers (#2) are fully **(OUT)**, park brake (#3) is **(ON)** and engine switch key (#4) is **(OFF)**.

2. Raise and block mower up to support drive wheels off the floor.



(Left Hydraulic Pump Removed for Clarity)
Steering Control Linkage
Figure 3-2

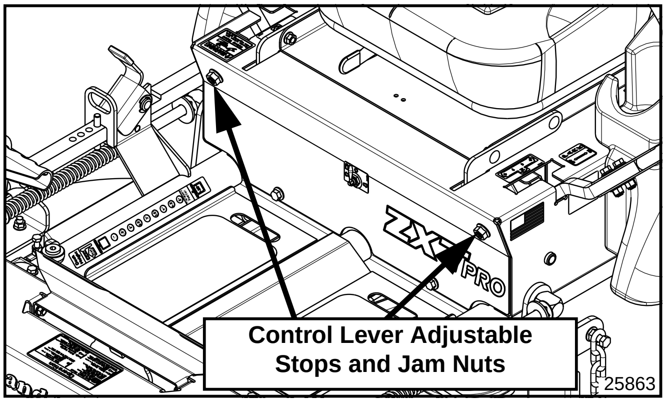
Refer to Figure 3-2:

3. Start engine and then move park brake to **(OFF).** Observe which way the wheels are rotating. Skip to step 6 if wheels do not rotate.
4. If a wheel is rotating forward:
    a. Locate steering linkage rod (1R) or (1L) that is located on the same side as the rotating wheel and loosen jam nuts (#2) on that rod.
    b. Rotate steering linkage rod to lengthen it until the wheel stops rotating.
    c. Tighten jam nuts at both ends of the linkage rod once the wheel stops rotating.
5. If a wheel is rotating in reverse:
    a. Locate steering linkage rod (1R) or (1L) that is located on the same side as the rotating wheel and loosen jam nuts (#2) on that rod.
    b. Rotate steering linkage rod to shorten it until the wheel stops rotating.
    c. Tighten jam nuts at both ends of the linkage rod once the wheel stops rotating.
6. While seated on the mower, test steering linkage by moving control levers in and then forward and backward before returning to neutral. If a wheel rotates while in neutral, move control levers out and repeat steps 4 & 5.
7. The unit is ready for operation if the wheels do not rotate while in neutral.
8. Move control levers out and turn ignition switch off.
9. Remove support blocks and safely lower mower wheels to the floor.

Control Lever Adjustable Stops

The control lever stops are designed to do two things:

- First, and most important, they must be adjusted to protect the pumps from bottoming out internally.
- Second, the stops can be adjusted to drive straight when control levers are against the stops.



Control Lever Stops
Figure 3-3

Adjust Stops to Protect Pumps

Refer to Figure 3-3:

This adjustment should be made first and must be made with mower engine **NOT RUNNING**. Check one side at a time to make sure each control lever is against the adjustable stop before the pump bottoms out internally.

1. Gently and slowly move one of the control levers forward and feel if there is some resistance on the lever before it comes against the stop. If you sense the pump linkage rod is bottoming-out (stopping forward motion before coming against the stop):
    a. Loosen the jam nut on the adjustable stop.
    b. Turn stop (set screw) inward to stop control lever slightly before the pump bottoms-out.
    c. When adjustment is correct, lock adjustable stop in place by re-tightening the jam nut.
2. Do this for both control levers.

Adjust Stops to Drive Straight

Refer to Figure 3-3:

NOTE: Variables such as oil temperature, pump efficiency, motor efficiency, tire pressure, etc., may effect the consistency to drive straight while pressing the control levers against the stops.

1. Determine which drive wheel is rotating too fast when both control levers are against the stops.
2. Stop mower and loosen the jam nut on the side which is rotating too fast. Turn stop (set screw) inward to stop control lever sooner.
3. Retighten jam nut and test again.
4. Repeat this procedure until unit drives straight.

Steering Dampener Adjustment

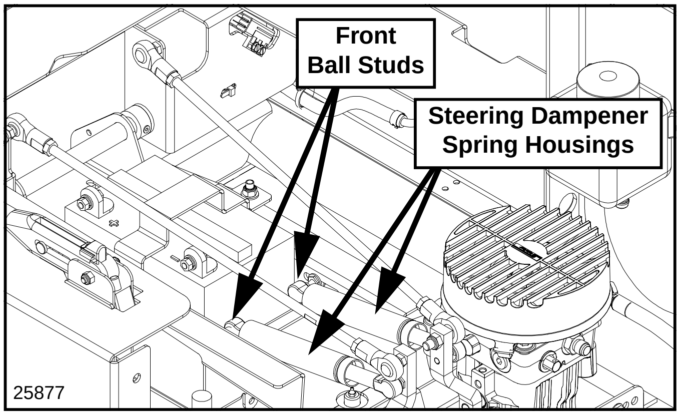
Refer to Figure 3-4:

The steering dampeners, located under the seat, are incorporated into the unit to provide some resistance when control levers are moved forward or rearward and return levers to neutral when backing up.

With mower engine off, pull control levers back and release them. Control levers are working correctly if they returned to neutral position. Adjust steering dampeners if control levers did not properly return to neutral.

1. Move control levers (OUT) to make sure they stay in neutral position.
2. Adjust right steering dampener:
    a. Loosen nut on the right front ball stud.
    b. Pull spring housing towards the front to engage internal spring.
    c. Release spring housing and allow the internal spring to bring the housing to neutral position.
    d. Retighten right front ball stud nut.
3. Repeat steps 1 & 2 to adjust the left dampener.
4. Check steering dampeners:
    a. Move control levers (IN), pull back and release. The control levers should return to neutral position.
    b. Repeat steps 1 - 4 if control levers do not properly return to neutral position.

NOTE: The dampener must not bottom out when the control lever is fully stroked in either direction.



(Left Hydraulic Pump Removed for Clarity)
Steering Dampener Adjustment
Figure 3-4

Upper Control Lever Adjustments

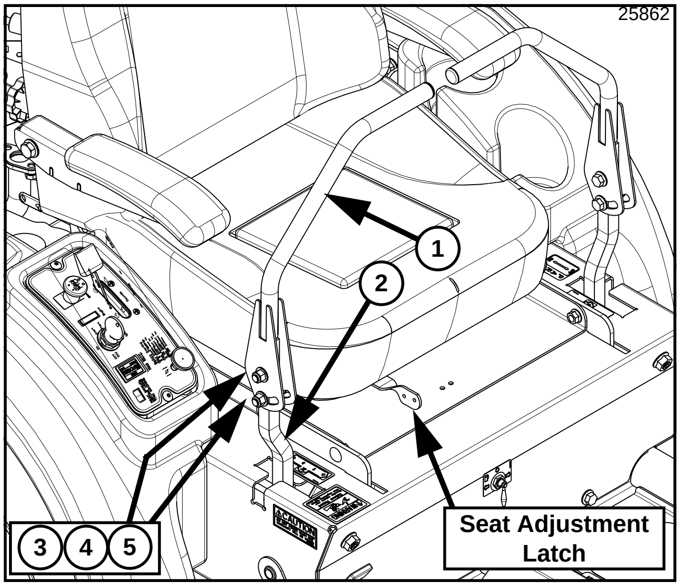
IMPORTANT: Do not make adjustment to lower control levers since they are already adjusted for neutral creep on page 22.

The control levers may be adjusted while in neutral position for height, reach and forward travel to fit the operator's steering comfort zone.

Height Adjustment

Refer to Figure 3-5:

1. Adjust upper control levers (#1) vertically by removing bolts (#3), flat washers (#4), and locknuts (#5) that attach the upper control levers to the lower control levers (#2).
2. Reposition upper control levers to a height that fits the operator's personal preference.
3. Reassemble bolts, flat washers, and locknuts in the same order they were removed without tightening them.



Control Lever Adjustment (Deluxe Seat Shown)
Figure 3-5

Reach Adjustment

Refer to Figure 3-5 on page 24:

The upper control levers (#1) can be adjusted forward or rearward to make steering more comfortable.

1. Loosen mounting bolts (#3) and pivot upper control levers (#1) forward or backward to fit operator's personal reach preference. Skip to step 3 if reach is satisfactory.
2. If reach comfort zone can not be achieved, then try switching the right upper control lever with the left upper control lever as follows:
    a. Remove bolts (#3), flat washers (#4), and locknuts (#5) attaching upper control levers (#1) to lower control levers (#2).
    b. Switch right control lever with left control lever and reassemble bolts, flat washers, and locknuts in the same order they were removed without tightening them.
    c. Pivot upper control levers forward or backward to fit operator's personal reach preference.
3. Verify that the control levers align with each other when in neutral and then tighten bolts (#3) to the correct torque.

Forward Travel Adjustment

Refer to Figure 3-5 on page 24:

"Reach Adjustment" instructions adjust the upper control levers (#1) to be equally aligned while in neutral. However, with this adjustment, the mower may want to steer slightly to the right or left when pushing the levers equally forward.

Make the following adjustments if you prefer to have the upper control levers equally aligned while in forward travel position instead of neutral position:

1. While driving forward, make the necessary steering correction required to make the unit go straight and take careful notice of how the upper control levers are positioned. (The distance one lever is ahead of the other to make the mower travel straight.)
2. Stop the mower on a level surface, place control levers in neutral, set park brake **(ON)**, shut power off and remove switch key.
3. You can either adjust the trailing lever forward by the distance it was trailing or adjust the leading lever back by the distance it was leading.
   a. Loosen mounting bolts (#3) on the side to be adjusted.
   b. Reposition the lever forward or backward by the distance it was trailing or leading.
   c. Retighten bolts (#3) to the correct torque.

   Example:
   If the right control lever is one inch ahead of the left control lever, stop the unit and either adjust the right upper control lever back one inch or adjust the left upper control lever forward one inch.

Seat Adjustment

Refer to Figure 3-5 on page 24:

The seat can be adjusted forward or rearward to a suitable distance that is comfortable for operating the deck lift pedal. Move the seat adjustment latch (located under the seat) to the left and then move the seat forward or rearward to a suitable distance. Once adjusted, return the latch to the locked position.

The arm rest can be adjusted up or down to a suitable arm rest height. Turn the knobs located under the arms or behind the seat back to raise and lower the arms.

The suspension seat (not shown) has a knob centered under the seat and to the front for adjusting seat suspension. Turn the knob clockwise when supporting more weight and counterclockwise when supporting less weight.

Ground Drive Belt Adjustment

Refer to Figure 3-6 & Figure 3-7:

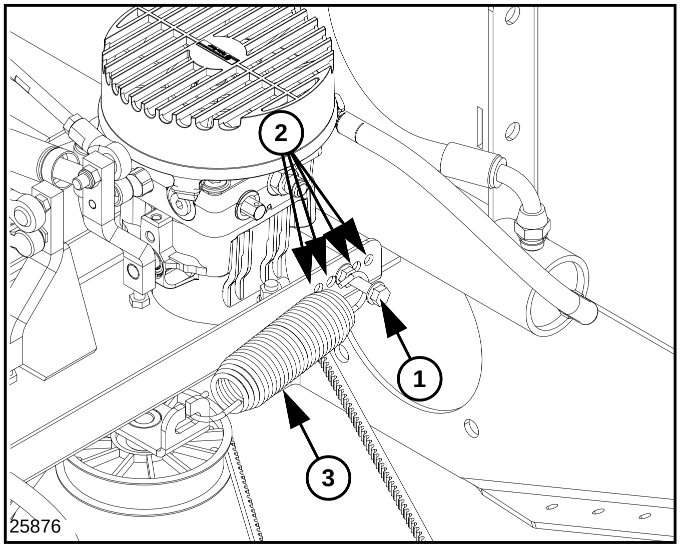
The ground drive belt tension is preset at the factory and should not require readjusting throughout the life of the belt. Replace belt when it becomes excessively worn or damaged.

When a worn belt has been replaced by a new one, verify that the ground drive extension spring (#3) is tensioned correctly. The proper spring tension will be achieved when the spring length is
4 1/4" (+/- 1/4"). The spring length can be changed by relocating the spring adjusting bolt (#1) to an alternate mounting hole (#2).

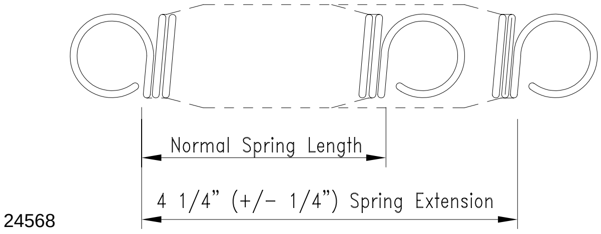
IMPORTANT: Do not over tension drive belt to compensate for a badly worn belt or pulley.

IMPORTANT: Excessive belt tension may lead to premature damage of belt and drive components. Also it is a safety hazard to the operator and bystanders.

Not enough belt tension may lead to premature belt damage due to excessive belt slippage.



Ground Drive Belt Adjustment
Figure 3-6



Ground Drive Belt Adjustment
Figure 3-7

Deck Drive Belt Adjustment

The deck belt (#1) remains in constant tension by means of a spring tensioned idler (#2). The spring tension should be adjusted so that the belt does not slip under normal operating load conditions and may require readjusting as the belt stretches and wears. Replace belt when it becomes excessively worn or damaged.

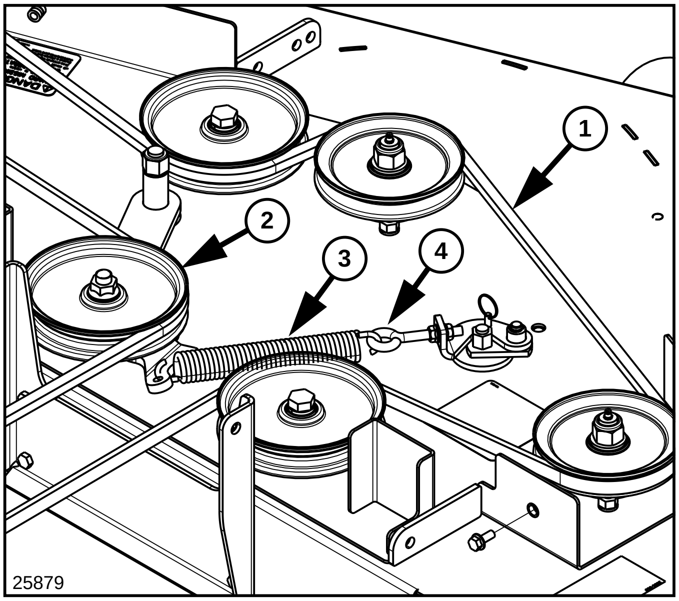
Refer to Figure 3-8 & Figure 3-9:

Check length of deck drive extension spring (#3) to verify if belt tension is correct. Installed spring length should be 4 3/4" +/- 1/8" (See Figure 3-9 below). Vary spring length by adjusting length of eye bolt (#4).

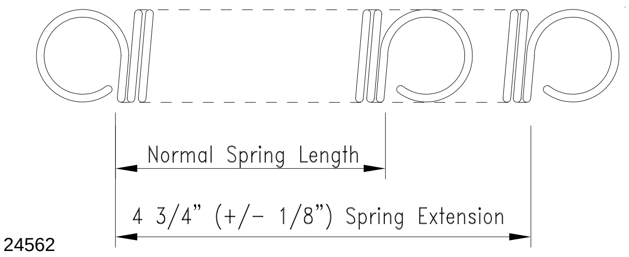
IMPORTANT: Do not over tension spring to compensate for a badly worn belt or pulley.

IMPORTANT: Excessive belt tension may lead to premature damage of belt and drive components and is also a safety hazard to the operator and bystanders.

Not enough belt tension may lead to premature belt damage due to excessive belt slippage.



Deck Drive Belt Adjustment
Figure 3-8



Deck Drive Belt Adjustment
Figure 3-9

Deck Leveling & Height Adjustments

The mower deck has three areas that may need to be checked occasionally and adjusted if needed.

- Deck Leveling Adjustments
- Cutting Height Settings
- Anti-Scalp Rollers

WARNING

*Make sure blade engagement switch is **(OFF)**, switch key is **(OFF)** and removed, control levers are **(OUT)** and park brake is **(ON)** before making adjustments.*

Deck Leveling Adjustments

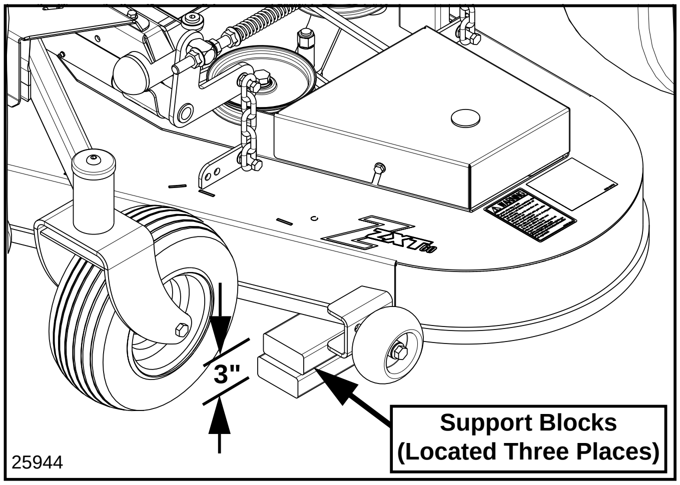
The bottom edge of deck should be equal distance to grade from front to back and left to right. If needed, level deck as follows:

1. Check tire pressures to make certain they are properly inflated.

NOTE: Refer to “Tire Inflation Chart” on page 55 for correct tire pressures.

Refer to Figure 3-10:

2. Park unit on a flat level surface.
3. Raise deck fully up.
4. Position blade cutting height at 3 1/4” by placing 3" high deck support blocks under the deck edge in three locations:
   a. Place two of the 3" support blocks under the deck front edge in-line with the far left and far right blade spindles.
   b. Center the third 3" support block under the deck back edge.
5. Remove deck height adjusting stop (#5) shown in Figure 3-11 on page 27 and lower deck onto the support blocks.

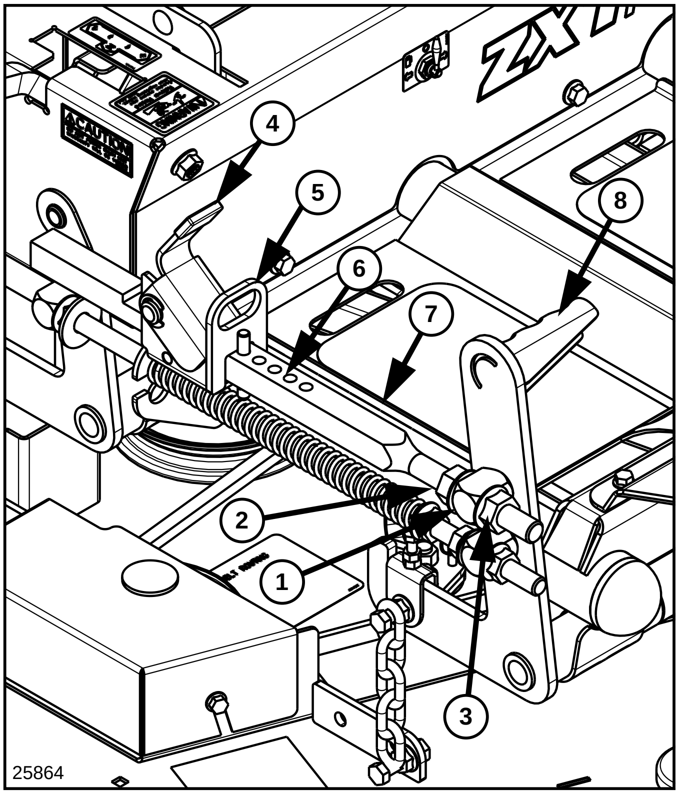


Blade Cutting Height will be 3 1/4"
When Blocking Deck Edge 3" Above Ground Level
Figure 3-10

Refer to Figure 3-11:

> **IMPORTANT:** Deck lift rod connection at the rear is fixed and is not adjustable. All adjustments to level and set deck height must be made at the front.

6. Loosen jam nut (#3) and back it away from deck lift block (#1) approximately 1".
7. Turn adjusting nut (#2) several truns away from deck lift block (#1).



Deck Height Gauge Bar Adjustment
Figure 3-11

Refer to Figure 3-12 & Figure 3-13:

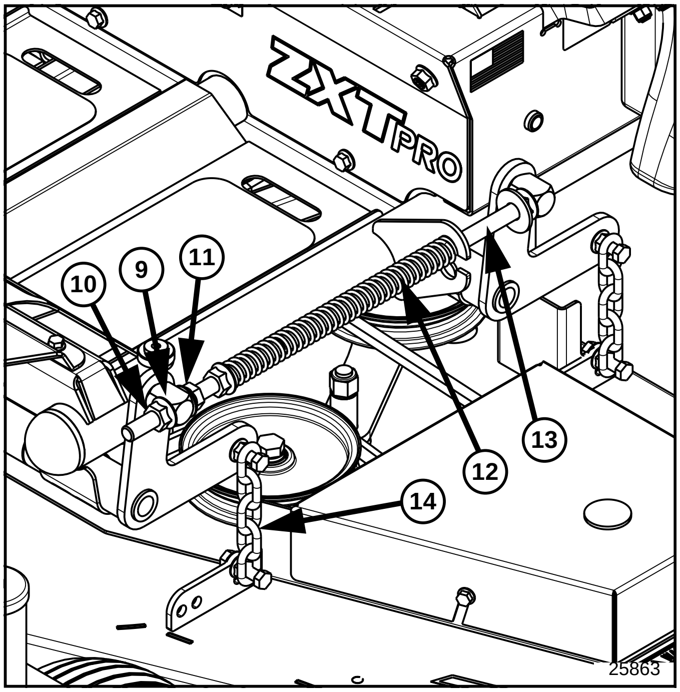
8. Unscrew jam nut (#11) from trunnion block (#9) four or more turns. Typical both sides.
9. Unscrew adjusting nut (#10) from trunnion block (#9) approximately 1". Typical both sides.

Refer to Figure 3-11 & Figure 3-13:

10. Loosen 5/16" jam nut (#16). Back adjuster bolt (#15) out until adjuster (#17) can move up and down freely.
11. Set cutting height at 3 1/4" by turning deck height adjusting stop (#5) so that the flat side is against stop handle (#4) and then place adjusting stop into the 3**"** cutting height hole in deck height gauge bar (#6) (See deck height indicator (#7) to locate 3" hole.)

Refer to Figure 3-11 & Figure 3-12:

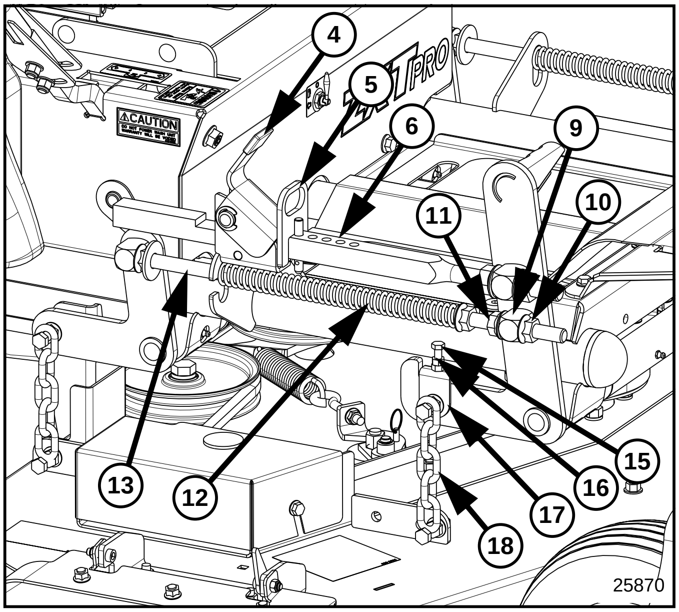
12. Turn adjusting nut (#2) against deck lift block (#1) until front deck lift chain (#14) on the left side is tight and deck is still resting on the 3" support blocks.
13. Tighten jam nut (#3) against deck lift block (#1).



Deck Level Adjustment (Left Side)
Figure 3-12

Refer to Figure 3-12 & Figure 3-13:

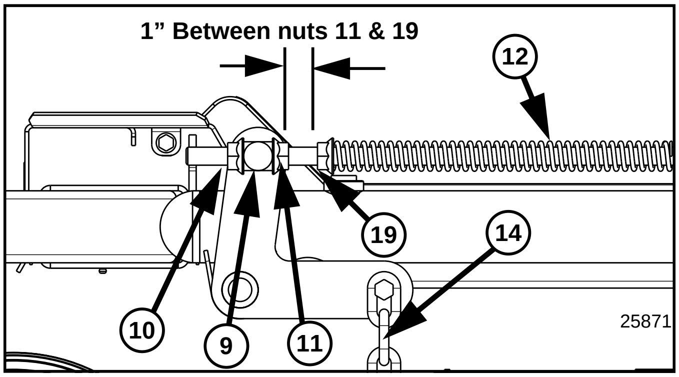
14. Be sure adjuster (#17) is free to move up and down. Tighten adjuster bolt (#15) until front deck lift chain on the right side becomes tight. Make sure mower deck stays tight against 3" support blocks.
15. Tighten jam nut (#16).
16. Turn adjusting nut (#10) against trunnion block (#9) until it makes contact. Typical both sides.
17. Tighten jam nut (#11) against trunnion block (#9). Typical both sides.



Deck Level Adjustment (Right Side)
Figure 3-13

Refer to Figure 3-14:

18. Adjust spring tension nut (#19) against deck lift assist spring (#12) until there is a 1” space between jam nut (#11) & tension nut (#19) Typical both sides.
19. When completed, all chains will be tight, deck will still be resting on the 3" support blocks and stop handle will be against deck height adjusting stop with stop positioned in 3" hole.
20. Raise deck fully up until the stop handle catches on the cross notch in the deck height gauge bar.
21. Remove all 3" support blocks.



Deck Lift Assist Spring Adjustment
Figure 3-14

Cutting Height Settings

Refer to Figure 3-11 on page 27:

Cutting height is adjustable from 1" to 5" in 1/4” increments. The holes in the height adjusting bar (#6) are spaced at 1/2” intervals. By turning the height adjusting stop (#5) around, 1/4” increments can be attained due to the 1/4” plate thickness that is part of the stop.

EXAMPLES:

1. When height adjusting stop (#5) is placed in one of the holes with the 1/4" plate facing forward, the cutting height will be the same as indicated on the deck height indicator:
   1, 1 1/2, 2, 2 1/2, 3, 3 1/2, 4, 4 1/2 or 5".
2. When height adjusting stop (#5) is placed in one of the holes, with the 1/4" plate facing rearward (against stop handle #4), the cutting height will be 1/4" more than the deck height indicator:
   1 1/4, 1 3/4, 2 1/4, 2 3/4, 3 1/4, 3 3/4, 4 1/4 or 4 3/4".

The notch located at the rear of the deck height gauge bar (#6) is used when placing the deck in transport position.

Cutting Height Adjustment

Refer to Figure 3-11 on page 27:

When level, the bottom edge of the deck should be 3" above ground level with deck height adjusting stop (#5) set at 3 1/4**”** cutting height. If not, readjust deck height adjusting nut (#2) as follows:

1. Loosen jam nut (#3) and back it away from deck lift block (#1) several turns.
2. Turn adjusting nut (#2) against or away from deck lift block (#1) until deck height is 3" above ground.
3. Tighten jam nut (#3) against the deck lift block (#1).

Anti-Scalp Rollers

Refer to Figure 3-15:

On the front of the mower deck are four anti-scalp rollers (#3). Their purpose is to minimize scalping when mowing on rough uneven terrain. Their height should be adjusted after setting the cutting height.

1. Position mower and deck on a flat level surface.
2. Set deck at desired mowing height.
3. Remove 1/2" hex nylock nuts (#2) from all four anti-scalp rollers (#3).
4. Reposition anti-scalp rollers up or down in the roller mounting brackets (#1). See important note below.

IMPORTANT: The anti-scalp rollers will extend below blade cutting height the distance shown below when mounted in the following holes:

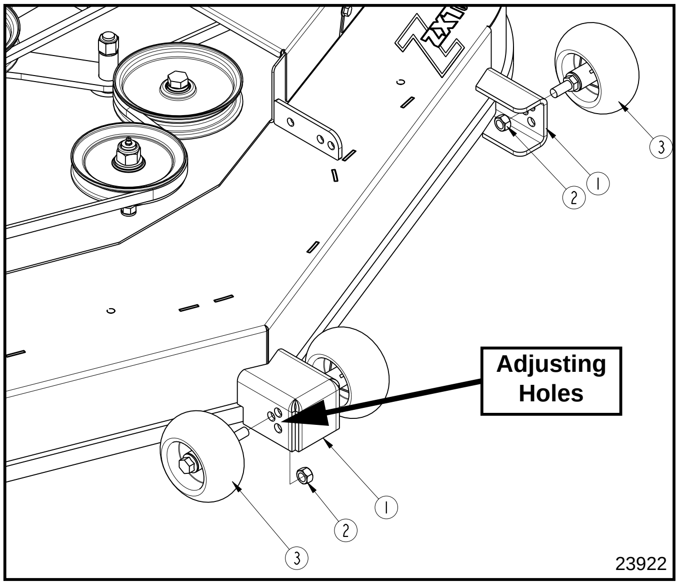
- 3/4" below if mounted in the top holes.
- 1 1/4" below if mounted in the middle holes.
- 1 3/4” below if mounted in the bottom holes.

For protection of the deck and blades, it is best if the rollers are mounted in the lowest possible hole without the roller touching the ground.

For example:
If deck cutting height is set at 1", the rollers should be mounted to the top holes.

If deck cutting height is set at 2" or more, the rollers should be mounted to the bottom holes.

5. Secure anti-scalp rollers to the mounting brackets with 1/2"-13 hex nylock nuts (#2). Tighten nuts to the correct torque.



Anti-Scalp Roller Adjustment
Figure 3-15

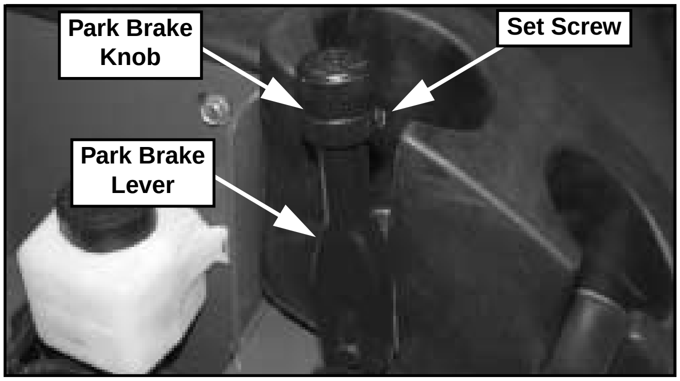
Park Brake Adjustment

Refer to Figure 3-16:

The park brake on your mower is factory adjusted and should not require any additional adjustments. However, the knob on the end of the lever may be turned to make minor adjustments if the park brake will not hold the mower on an incline or if the park brake lever pulls too hard (8 lbs. or more pulling force.)

1. Loosen the set screw at the park brake knob until the knob can be rotated counter clockwise.
2. Rotate park brake knob in half turns counterclockwise to decrease lever pulling force or clockwise to increase lever pulling force.
3. Test pulling force by pushing off and then pulling on the park brake. Less than 5 lbs of pulling force is required to hold the mower on an incline. Pulling forces of 30 lbs and higher can damage the wheel motors.
4. Align set screw in knob with hole in lever and then retighten it.

Major adjustments to the park brake should be made by your nearest Land Pride Dealer.



Park Brake Adjustment
Figure 3-16

Front Axle Pivot

Refer to Figure 3-17:

The front center pivot axle can be locked to hold the front wheels rigid or unlocked to let the front wheels float with the contour of the ground.

⚠ WARNING

*Make sure blade engagement switch is **(OFF)**, switch key is **(OFF)** and removed, control levers are **(OUT)** and park brake is **(ON)** before making adjustments.*

Lock Front Axle Pivot

Refer to Figure 3-17:

1. Park all four wheels on a flat level surface.
2. Be sure to adhere to the **WARNING** above before opening the floor plate (#1).
3. Raise floor plate up to access pivot locking components.
4. Rotate locking bar (#2) into pivot notch (#3). See note below if locking bar does not align with notch.
5. Close floor plate.

NOTE: It is not necessary for the locking bar to align perfectly with the pivot notch. Driving the mower after closing the floor plate will pivot the axle and align the pivot notch with the locking bar. When aligned, the locking bar will, on its own, fall into the notch.

Unlock Front Axle Pivot

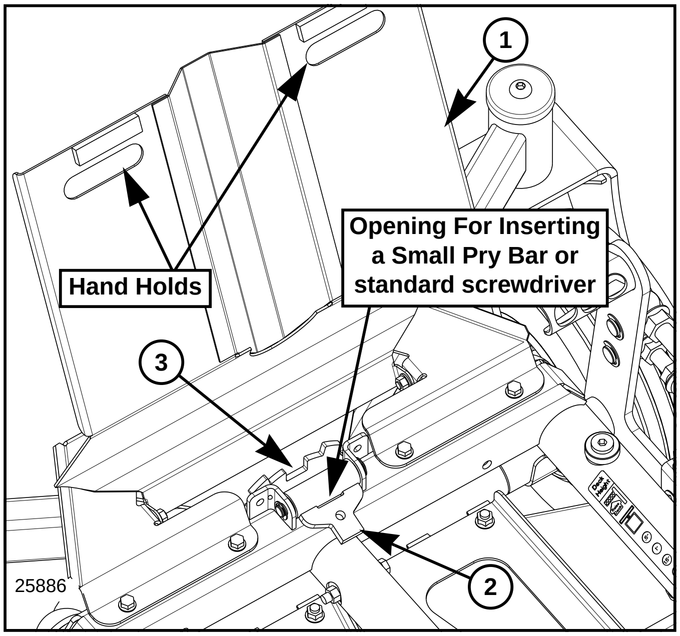
Refer to Figure 3-17:

1. Park all four wheels on a flat level surface.
2. Be sure to adhere to the **WARNING** above before opening the floor plate (#1).
3. Raise floor plate up to access pivot locking components.
4. Rotate locking bar (#2) out of pivot notch (#3). See note below if locking bar does not release easily.

NOTE: A small pry bar or standard screwdriver can be inserted into the opening shown in Figure 3-17 to assist pulling locking bar out of pivot notch.

If pry bar will not dislodge locking bar, then look on both sides of locking bar for a gap between locking bar and pivot notch. Place a small wedge under the front wheel that is on the same side as the gap. Try using the pry bar again to remove locking bar from pivot notch.

5. Once free, rotate locking bar 180^{o} away from the pivot notch for storage.
6. Close floor plate.

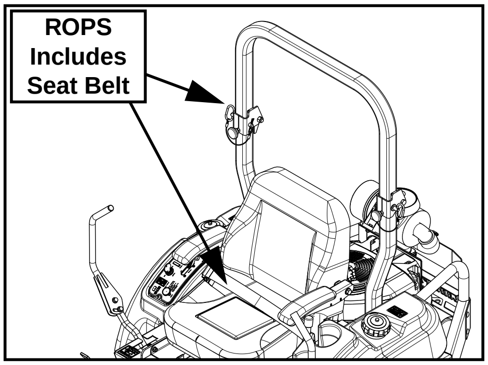

1
Opening For Inserting a Small Pry Bar or standard screwdriver
Hand Holds
3
2
25886

Pivot Locking Device (Unlocked Pivot Shown)
Figure 3-17

Roll Over Protection System (ROPS)

Refer to Figure 4-1:

Add roll over protection to your Zero Turn Mower with an optional ROPS. Available in a folding model for cutting under trees.

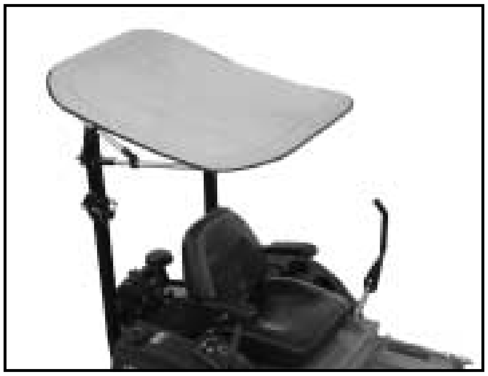


Roll Over Protection System
Figure 4-1

Folding Soft Top Canopy

Refer to Figure 4-2:

Keep the sun off with this easily assembled, ROPS attached canopy. Made with a lightweight aluminum frame and acrylic coated polyester, you'll be more comfortable during those sunny afternoons.

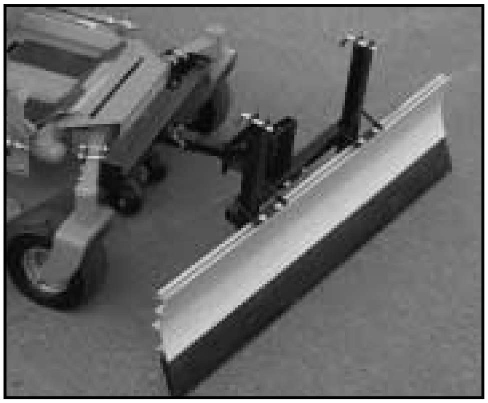


Folding Soft Top Canopy
Figure 4-2

Snow Plow

Refer to Figure 4-3:

Get more use from your Zero Turn Mower by attaching a front mount snow blade. Available in 60" and 72" widths, this blade easily attaches to your ZXT Pro mower for the winter months.

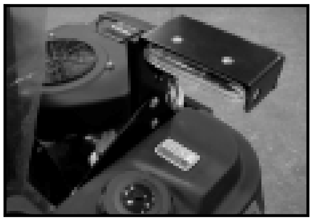


Snow Plow
Figure 4-3

Light Kit

Refer to Figure 4-4:

Make seeing easier when completing a job after sundown and when parking your mower in a shed that is not well lit by attaching Land Pride's light kit.

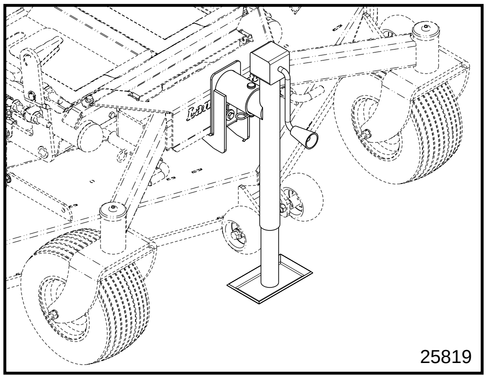


Light Kit
Figure 4-4

Screw Jack

Refer to Figure 4-5:

Make accessing the underside of your deck easier with a front mount screw jack. It is especially useful for cleaning the deck underside, accessing the cutting blades and making front tire repairs.

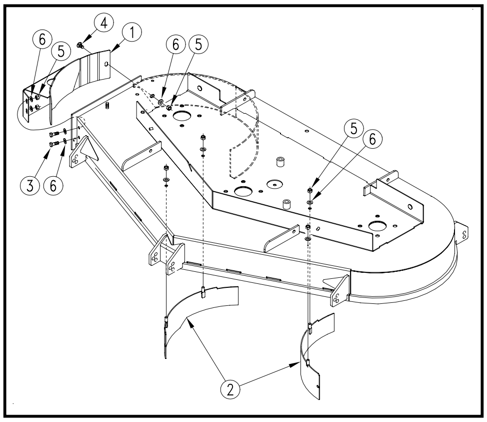


Screw Jack
Figure 4-5

Mulching Kit

Refer to Figure 4-6:

Give your lawn that fresh cut grass look without those unsightly grass clippings showing by installing mulching blades and baffles (Items 1 & 2) on your mower deck.



Mulching Baffles and Blades (60" Deck Shown)
Figure 4-6

Maintenance

WARNING

Read and observe all safety warnings in this manual and in the engine service manual.

WARNING

Except when checking or changing components, always keep protective shields on for safety as well as for cleanliness.

WARNING

Keep your machine clean. Remove all deposits of trash and clippings. A dirty machine can cause engine fires and hydraulic overheating as well as excessive belt wear.

WARNING

DO NOT have engine running when servicing or making adjustments to the mower. Shut blade engagement switch off, place both control levers out, set park brake to on, shut engine off and remove ignition switch key.

DANGER

Repairs or maintenance specifically requiring engine power should be performed by trained personnel only. Control levers should be out. If control levers are to be operated, the tires should be properly supported off the floor. Enclosed areas should be properly ventilated to prevent carbon monoxide poisoning.

WARNING

Before working on or under the deck, make certain the engine cannot be accidentally started. Shut engine off and remove ignition switch key for maximum safety. Repairs or maintenance requiring engine power should be performed by trained personnel only.

DANGER

Exercise caution when working under the deck as the mower cutting blades are extremely sharp. Wearing gloves is advisable when working around or with cutting blades.

WARNING

When possible, clean under mower using a stick or similar instrument making sure that no part of the body, especially arms and hands are under mower.

Regular maintenance is the best prevention for costly downtime or expensive, premature repair. The following pages contain suggested maintenance information and schedules which the operator should follow on a routine basis.

Check initially and periodically for loose bolts and pins. Torque loose bolts per the “Torque Values Chart” on page 55. Remain alert for unusual noises, they could be signaling a problem. Visually inspect the machine for any abnormal wear or damage. A good time to detect potential problems is while performing scheduled maintenance service. Correcting problems as quickly as possible is the best insurance.

Clear away heavy build-up of grease, oil and dirt, especially around the engine and under the seat platform; minute dust particles are abrasive to close-tolerance engines and hydraulic assemblies.

Inspect mower daily for grass clippings, tangled wire and string. The underside of the mower deck will collect a build-up of grass clippings and dirt, especially when grass is wet or has high moisture content. This build-up will harden, restricting blade and air movement and will usually produce a poor quality of cutting. Therefore, debris should be routinely removed from under the deck.

To do this, it will be necessary to raise and block the deck in the full up position before scrapping build-up from underneath.

Some repairs require the assistance of a trained service mechanic and should not be attempted by unskilled personnel. Consult your Land Pride dealer when assistance is needed.

Torque Values

WARNING

Particular attention must be given to tightening the drive wheel lug nuts, blade spindle bolts and electric clutch bolt. Failure to correctly torque these items may result in the loss of a wheel, blade or burnt clutch which can result in serious damage and/or personal injury.

It is recommended that the lug nuts, spindle bolts and electric clutch bolt be checked after the first 2 hours of initial operation and after removal for repair or replacement. Thereafter, they should be checked every 50 hours of operation.

IMPORTANT: Refer to "Torque Values Chart" and “Additional Torque Values” on page 55 for correct torque values.

Maintenance Schedule

Service at Intervals Indicated	Every 25 Hrs	Every 50 Hrs	Every 100 Hrs	Every 200 Hrs	Every 500 Hrs	Refer to Page
Clean mower, Deck & Engine Cooling System	Daily (After engine has cooled.)					
Verify Safety Start Interlock System	Daily (Before each use)					16
Inspect Unit for loose hardware and damage	Daily (Before each use)					32
Visually Inspect Tires	Daily (Before each use)					55
Check Engine Oil Level	Daily (Before each use or every 4 hours, whichever comes first)					39
Clean Air Intake Screen	Daily (Before each use or every 4 hours, whichever comes first)					40
Check Fuel Level	Daily (Before each use)					38
Blades - Sharp & Securely Fastened	Daily (Before each use)					32 & 44
Discharge Chute - Securely In Place & In Lowest Position	Daily (Before each use)					
Grease Blade Spindle Bearings	X					47
Change Engine Oil & Filter (1)		X				39
Clean Cylinder And Head Fins		X				
Check Battery Connections		X				11 & 36
Check Tire Pressure With A Gauge		X				55
Clean Engine Exterior (3)		X				
Check hydraulic Oil Level		X				37
Tighten Lug Nuts On Wheels (2)		X				32
Grease Caster Wheel Bearings			X			47
Check Ground And Deck Belt Tension (4)			X			42 & 42
Check Fuel and Hydraulic Lines (5)			X			38
Change Fuel Filter (3)			X			38
Grease Deck Lift Points (8)			X/M			48
Grease Deck Lift Pivot Points (8)			X/M			
Replace Spark Plugs(3)				X		
Replace Air Cleaner Paper Element (6)				X		40
Grease Front Axle Center Pivot (8)					X/A	48
Grease Idler Arm Pivot Pin (8)					X/A	48
Change Hydraulic oil & Filter (7) (8)					X/A	37

NOTES:

1. Initial engine oil and oil filter change is after the first 5 hours of operation. Thereafter, change engine oil and oil filter every 50 hours of operation. Change every 25 hours when operating the engine under dusty or dirty conditions, heavy load, high temperatures and hot weather periods. Refer to Engine Owner's Manual.
2. Torque lug nuts initially and after first 2 hours of operation.
3. Remove cooling shrouds and clean cooling areas. Check oil cooler fins and clean as needed. Refer to Engine Owner's Manual.
4. Inspect ground and deck belt tensions every 6 months or 100 hours and replace if worn or cracking is noticed. Otherwise, replace every 200 hours or 2 years whichever comes first.
5. Check fuel line hoses and fuel valve for any cracks or leaks.
6. Replace air cleaner filter element if damaged, every 200 hours or every season (whichever comes first). Replace more frequently when used in dusty conditions.
7. Initial hydraulic oil and filter change is between 25 and 50 hours of operation.
8. X/M = Service per hours indicated in column or monthly (whichever comes first).
   X/A = Service per hours indicated in column or annually (whichever comes first).

Maintenance Locations

Your ZXT Pro riding mower is designed with innovative and state-of -the art components that should be maintained. Knowing the location and how to maintain these components is the best prevention for costly downtime or expensive, premature repair. Become familiar with the components listed below. Most are reviewed in "Section 3: Adjustments" and this section.

Refer to Figure 5-1:

1. Pulley Guards
2. Over-Center Belt Tensioner
3. Deck Belt Tensioner Spring
4. Deck Belt
5. Deck Tension Idler
6. Anti-Scalp Wheels
7. Blade Spindle Zerks (3)
   (1)Under floor panel
   (2) Through opening in pulley guards
8. Discharge Chute

Refer to Figure 5-2:

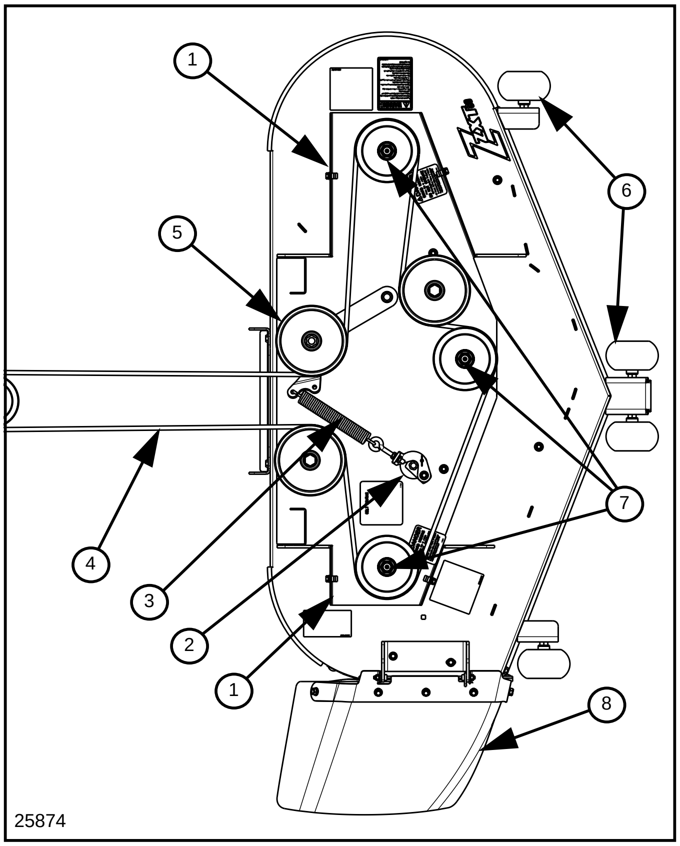
9. Cutting Blades
10. Deck Underside

Refer to Figure 5-3:

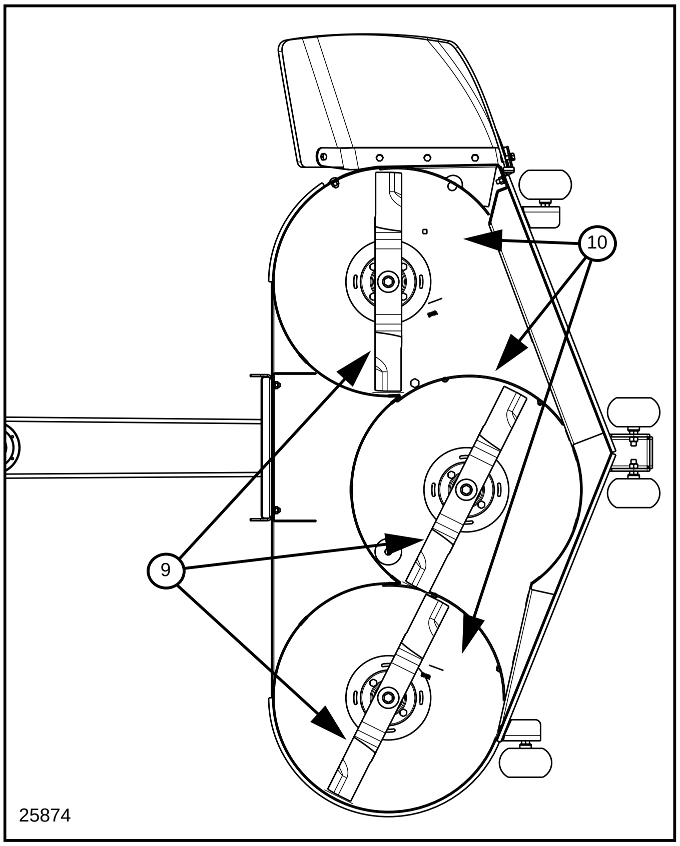
11. Engine Oil Fill & Dipstick
    (Honda & Kawasaki: RH side)
    (Briggs & Stratton: LH side)
12. Engine Oil Drain Plug
    (Under oil fill & dipstick.)
13. Engine Oil Filter (Honda only)
14. Engine Oil Cooler (Honda Only)
15. Engine Air Cleaner
16. Fuel Filter
    (Location varies by engine)
17. Seat Release Latch
18. Hydraulic Oil Expansion Tank (2)
    (For level check and adding oil.)
19. Battery (located under seat)
20. Operator Pressure Switch
    (Located under seat.)
21. Park Brake
22. Hydraulic Oil Fill Plugs (2)
    (For initial fill & oil changes only.)
23. Floor Panel & Lift Handles
24. Left/Right Fuel Tank Valve
    (Between Control Lever Stops)
25. Seat Adjustment Latch
26. Control Lever Stops (2)
27. Axle Pivot Locking Bar
    (Under floor panel)
28. Fuel Tanks (2)
29. Full Tank Caps (2)

Refer to Figure 5-4:

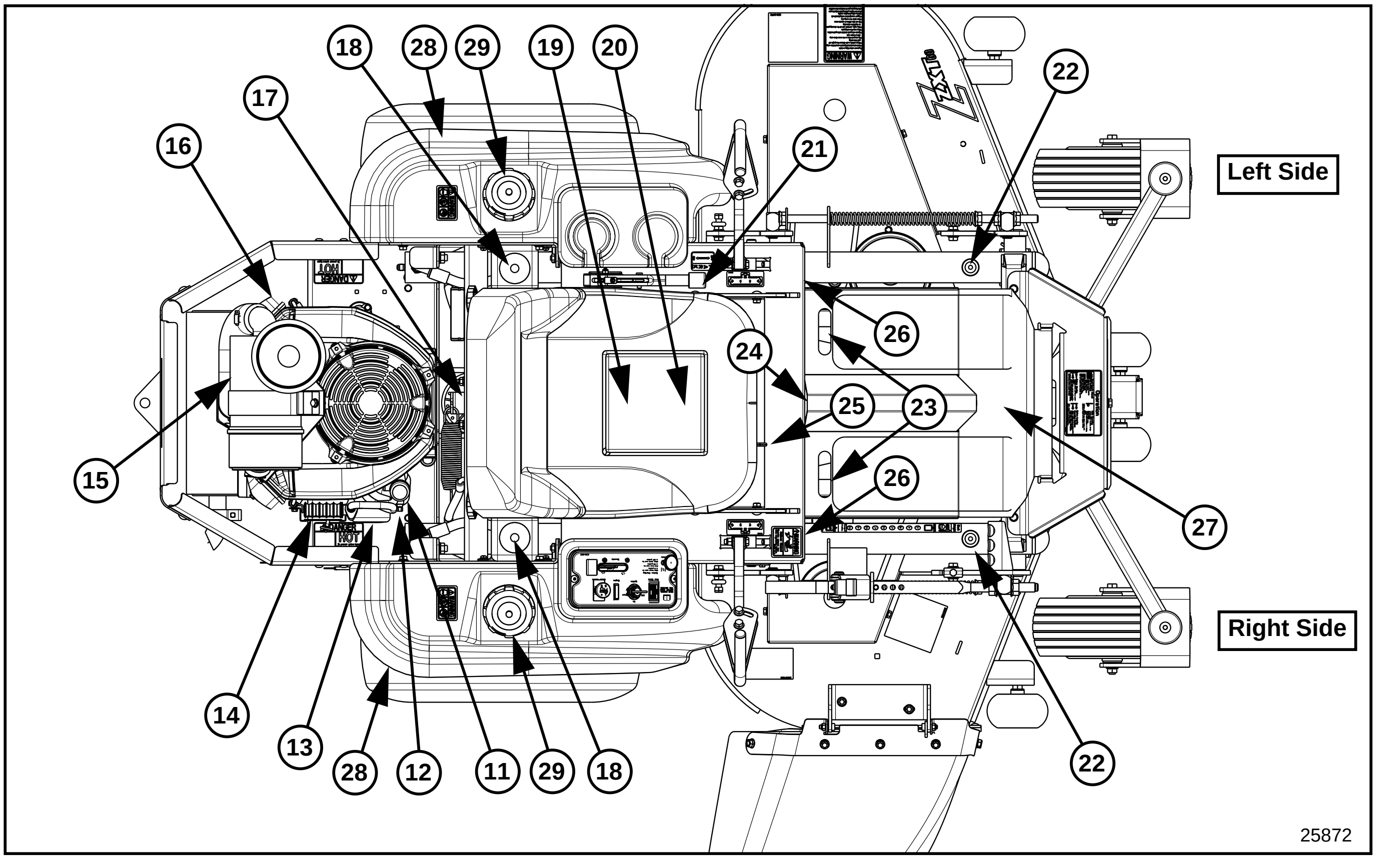
30. Engine Muffler
31. Electric Clutch Pulley
32. Ground Drive Belt
33. Ground Belt Tension Idler Spring
34. Ground Belt Tension Idler
35. Hydraulic Oil Filters (2)
36. Drive Wheels (2)
37. Deck Lift Grease Zerks (4)
38. Deck Lift Pivot Grease Zerks (2)
39. Hydraulic Oil Drain Plugs (2)
40. Caster Wheel Grease Zerks (2)
41. Caster Wheels (2)
42. Front Axle Pivot Grease Zerk
43. Idler Arm Pivot Pin Zerk
    (Lift seat to access zerk)



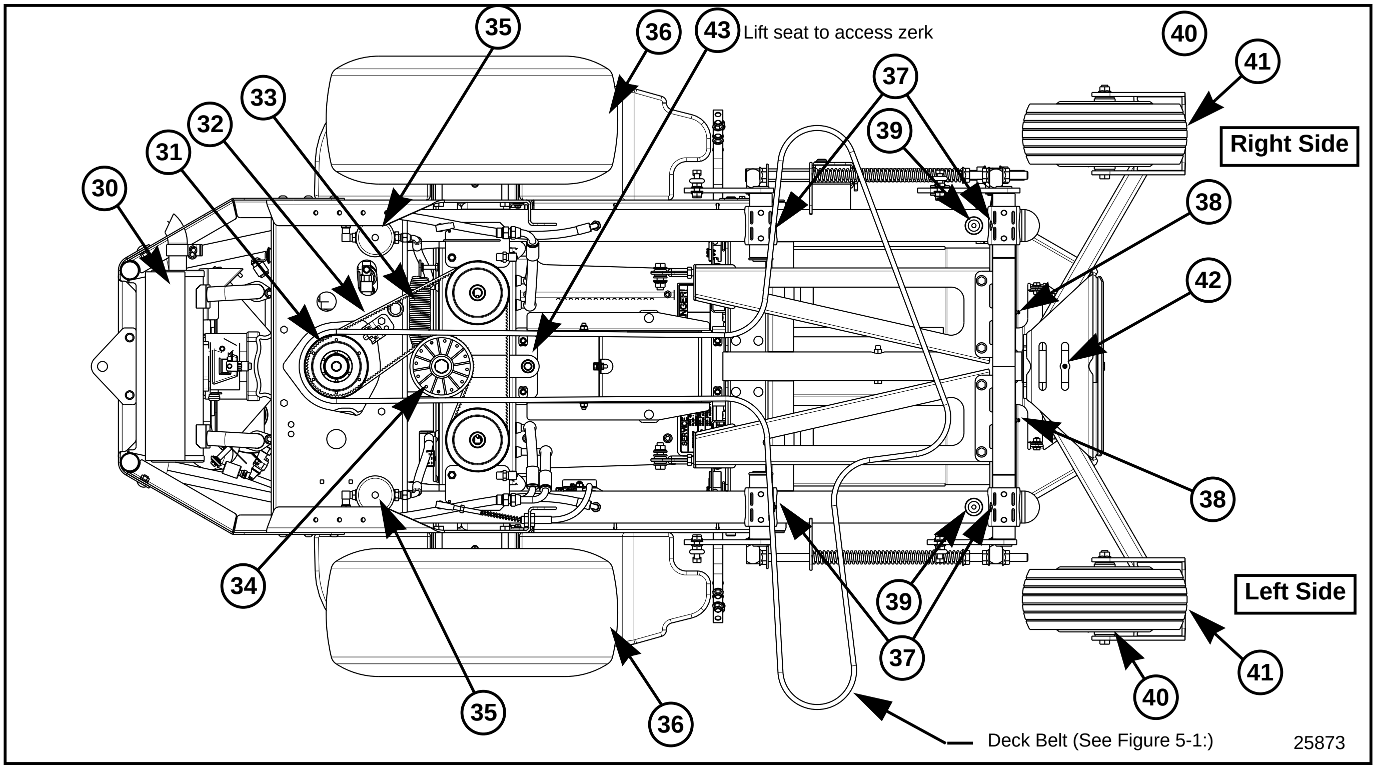
Top View of Deck
Figure 5-1



Bottom view of Deck
Figure 5-2


18
28
29
19
20
22
17
16
21
Left Side
26
24
25
23
15
26
27
Right Side
14
13
28
12
11
29
18
22
25872

Top View of Mower (Honda Engine Shown)
Figure 5-3

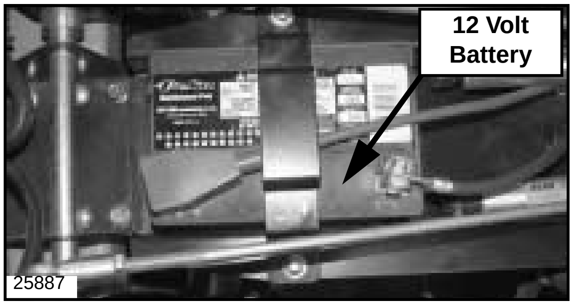

35
36
43
Lift seat to access zerk
40
41
33
37
Right Side
32
39
31
30
38
42
38
34
39
Left Side
37
41
40
35
36
Deck Belt (See Figure 5-1:)
25873

Bottom view of Mower (Deck Not Shown)
Figure 5-4

Electrical System

Refer to Figure 5-5:

The mower is equipped with a 12 volt negative ground electrical system powered by a battery located under the seat. When worn out, replace it with a maintenance-free garden mower 12 volt BCI group U1R with 225 or better cold cranking AMPs (CCA). Follow manufacturer's maintenance, safety, storing and charging specifications.



Battery
Figure 5-5

WARNING

Incorrect battery cable connections can damage the mower's electrical system and cause battery cables to spark. Sparks around a battery can result in a battery gas explosion and personal injury.

- *Always **disconnect** negative (black) battery cable before disconnecting positive (red) cable.*
- *Always **reconnect** positive (red) battery cable to the positive **(+)** post before reconnecting negative (black) cable to the negative **(-)** post.*

WARNING

Keep battery terminals from touching any metal mower parts when removing or installing the battery. Do not allow metal tools to short between the battery terminals and metal mower parts. Shorts caused by battery terminals or metal tools touching metal mower components can cause sparks. Sparks can cause a battery gas explosion which will result in personal injury.

WARNING

Acid can cause serious injury to skin and eyes. Avoid skin contact with battery acid and always wear eye protection when checking the battery. Flush area with clean water and call a physician immediately. Acid will also damage clothing.

WARNING

Do not overfill battery. Electrolyte may overflow and damage paint, wiring or structure. When cleaning the battery, use soap and water. Be careful not to get soap and water into the battery. Use soda mixed in water to clean corrosion off the terminals.

WARNING

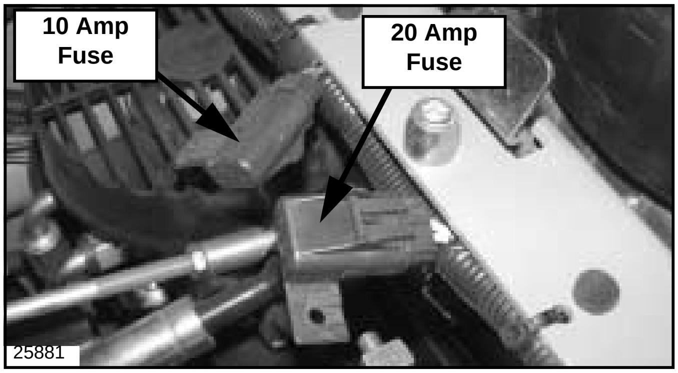
Do not allow an open flame near the battery when charging. Hydrogen gas forms inside the battery. This gas is both toxic and flammable and may cause an explosion if exposed to a flame.

Common circuit problems are usually caused by electrical shorts, corroded or dirty terminals, loose connections, defective wire insulation or broken wires. Switches, solenoids and ignition components may also fail, causing a shorted or open circuit.

Refer to Figure 5-6:

The electrical system is protected by fuses located along the wire harness beneath the seat next to the engine. The fuses are:

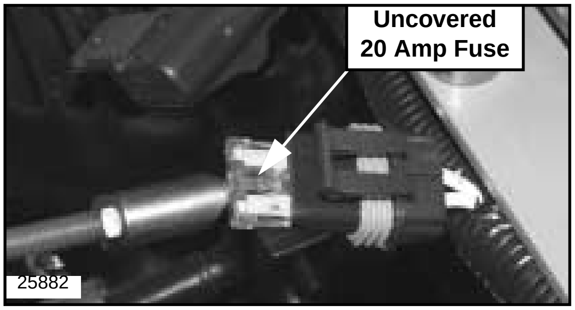
- Main - 20 Amp, blade type
- Clutch - 10 Amp, blade type



Wiring Harness Fusses
Figure 5-6

Refer to Figure 5-7:

Remove cover over the fuse to access the fuse.



20amp Fuse W/Cover Removed
Figure 5-7

Before attempting any diagnosis of the electrical system, use a test light or voltmeter to check battery voltage. If battery voltage is satisfactory, check cleanliness and tightness of terminals and ground connections. A general understanding of electrical servicing and use of basic test equipment is necessary for troubleshooting and repair.

Major overhaul or repair of starting motor or charging system should be performed by trained technicians only.

Hydrostatic Drive System

DANGER

Hydraulic fluid under pressure can penetrate skin. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. Use a piece of cardboard or wood rather than hands when searching for hydraulic leaks. If hydraulic fluid is injected into the skin, it must be treated by a doctor within a few hours or gangrene may result.

WARNING

Always wear adequate eye protection when servicing the hydraulic system.

IMPORTANT: Do not use a high pressure washer on or around the hydraulic pumps and motors. Water intrusion will result and void the warranty.

The ZXT Pro is equipped with two completely independent hydrostatic drive systems with each system consisting of a reservoir, pump and motor.

Access the hydrostatic drive units by lifting the seat platform which is hinged at the front. To raise the seat, pull on the seat release latch at the back and tilt the seat platform up and forward.

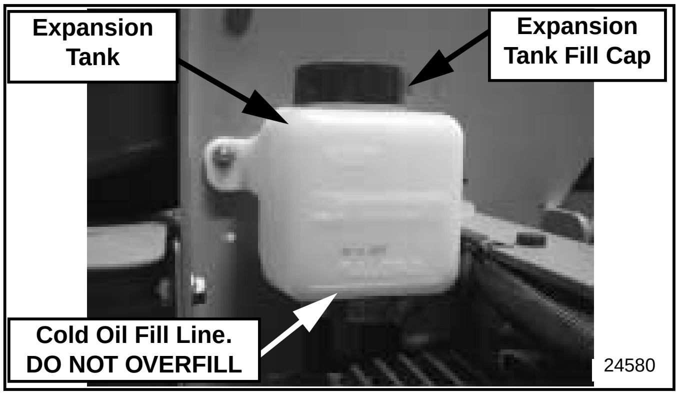
Repairs to the hydraulic pumps and motors should be performed by trained technicians only.

The hydrostatic drive pumps are equipped with bypass valves that must be opened before moving the mower with a stalled engine. Refer to “Moving Mower with Stalled Engine” on page 18 for more information.

Hydraulic Oil Level Check

Refer to Figure 5-8 on page 37:

Hot oil expands, therefore, check hydraulic oil level only when it is cold. The left side is independent from the right side. Make sure you check and fill oil as needed on both sides. Oil level should be about 1/8" deep in the bottom of expansion tank when cold. Add hydraulic oil to the tank if no oil is present. **Do not overfill**. See page 49 for hydraulic oil specifications.



Hydraulic Reservoir (Left Side Shown)
Figure 5-8

Hydraulic Oil and Filter Change

Each hydraulic pump has its own independent oil system. Therefore, each pump will require new hydraulic oil and oil filter. It is best to change oil soon after using the mower while dirt particles are still suspended in the oil. See “ZXT Pro (Hydrostatic Transmission Specifications)” on page 49 for hydraulic oil type and filter part number.

Initially, change hydraulic oil and oil filters after the first 25 to 50 hours of operation. Thereafter, change hydraulic oil and filters every 500 hours or every year whichever comes first. Two filters are required with each oil change. They may be purchased from your nearest Land Pride dealer.

IMPORTANT: Clean debris from around the drain plug, fill plug and expansion tank cap before draining and filling unit with hydraulic oil.

Refer to Figure 5-3 & Figure 5-4 on page 35:

Changing instructions are for changing oil on the left side and then the right side. Both sides can be changed at the same time if two oil drip pans are available.

1. Place an oil drip pan beneath drain plug (#39) on the left side and remove drain plug.
2. To facilitate drainage, remove expansion tank cap (#18) and fill plug (#22) from the left side. Allow oil to drain completely.
3. Remove left side oil filter (#35) and properly discard.
4. Once oil has slowed to a slow drip, reinstall drain plug (#39) and tighten to the correct torque.
5. Install new oil filter (#35) as follows:
    a. Clean mounting surface that filter seats against with a clean rag.
    b. Apply a thin coat of oil to the rubber seal on the oil filter.
    c. Completely fill oil filter with hydraulic oil.
    d. Screw new filter on until it makes contact with metal seating surface.
    e. Tighten filter an additional 3/4 to 1 full turn more.
6. Add hydraulic oil to the left fill hole (#22) until oil reaches top of hole.
7. Reinstall left fill plug (#22) and tighten to the correct torque.
8. Add hydraulic oil to the expansion tank (#18) until oil is 1/8" deep in bottom of tank.
9. Wipe off all excess oil. A degreaser may be needed to remove excess oil.
10. Reinstall expansion tank cover (#18).
11. Repeat steps 1 thru 10 for the right side.

Fuel System

DANGER

- *Replacement of fuel system parts (i.e. gas caps, hoses, fuel tanks, fuel filters, etc.) must be the same as original parts. Fire and/or explosion can occur if not followed.*
- *Observe safe fuel handling precautions.*
- *Do not smoke while handling fuel.*
- *Do not fill tank with engine running or while engine is hot. Allow engine to cool before filling. Spilling fuel over engine, muffler, or hot objects may result in a fire or explosion.*
- *Allow engine to cool before servicing the fuel system.*
- *Do not fill fuel tanks to the top if mowing on hilly terrain or in hot weather. Gas can rise up to the fuel cap vent hole and seep out.*
- *Clean up any gasoline spills immediately.*
- *Keep fuel away from open flame or spark.*
- *Store mower away from open flame or spark if there is fuel in the tank.*
- *Use extra caution when handling gasoline and other fuels. They are flammable and vapors are explosive. A fire or explosion from gasoline can burn you and others and can damage property.*
- *Refuel outdoors preferably, or in well ventilated areas.*
- *Never attempt to start the engine when there is a strong odor of gasoline fumes present. Locate and correct cause.*
- *Store gasoline in an approved container and keep it out of children's reach.*
- *Never buy more than a 30 day supply of gasoline.*
- *Do not fill gasoline containers inside a vehicle, on a truck, or on a trailer. Interior carpets and plastic truck bed liners insulate the container and slow loss of static charge.*
- *When practical, remove equipment from the truck or trailer and refuel the equipment with its wheels on the ground. If this is not possible, then refuel the equipment on the truck or trailer using a portable container and not a gasoline dispenser nozzle. If a gasoline dispenser nozzle must be used, keep nozzle in contact with rim of fuel tank or container opening at all times until fueling is complete.*
- *Gasoline is a poison that is harmful or fatal if swallowed.*
- *Avoid prolonged breathing of vapors. Long-term exposure to vapors can cause serious injury and illness*
- *Keep face away from nozzle and gas tank opening.*
- *Keep gas away from eyes and skin.*

Refer to Figure 5-3 on page 35:

The fuel tanks (#28) are located on the mower's fenders. Total capacity of the fuel tanks is 12 U.S. gallons. Before filling, push blade engagement switch **(OFF)**, move both control levers **(OUT)**, set park brake **(ON)** and turn switch key **(OFF)**. Allow engine to cool before filling tanks.

Clean dirt from around fuel tank cap (#29); remove cap and begin filling. Do not fill fuel tanks to the top if mowing on hilly terrain or in hot weather. Gas can rise up to the fuel cap vent hole and seep out. When finished, screw cap back on securely and wipe up any spilled gasoline. Use regular unleaded gasoline with an (R+M)/2 octane rating of 87 or higher.

IMPORTANT: The fuel system can be damaged if the wrong fuel is used. Never use methanol, lead gasoline or unleaded gasoline containing more than 10% ethanol. Do not mix oil with gasoline.

Using a fuel stabilizer/conditioner in the fuel can provide benefits such as:

1. Keeps gasoline fresh during storage of 90 days or less. Drain fuel tanks if storage is longer.
2. Cleans engine during operation.
3. Eliminates gum-like varnish build-up in the fuel system.

Be sure to add the correct amount of gas stabilizer/conditioner. For best results, follow manufacturer's directions.

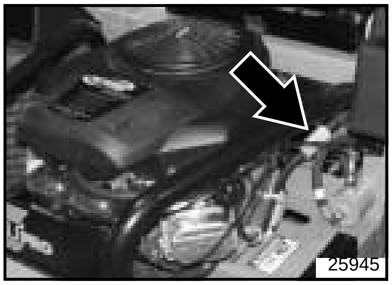
Fuel Filter

Refer to Figure 5-9:

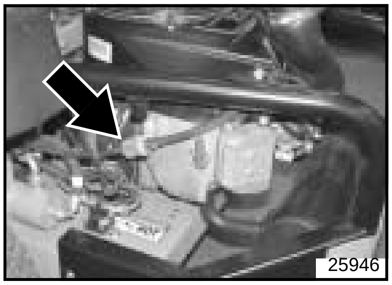
DANGER

Close fuel shut-off valve before replacing fuel filter. Otherwise, fuel can leak out creating a fire and/or explosion hazard.

The fuel filter is installed in the fuel line between the Left/Right Fuel Tank Valve and engine fuel pump. Location of fuel filter will vary depending on which engine your mower is equipped with. See engine owner's manuals for exact location of fuel filter and instructions on removal and installation.



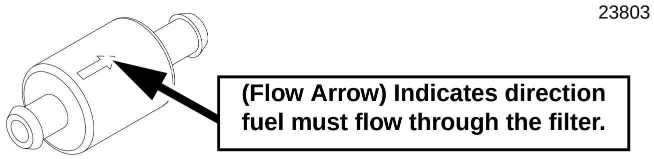
Briggs & Stratton Fuel Filter Location (Right Side)
Figure 5-9



Kawasaki & Honda Fuel Filter Location (Left Side)
figure 5-10

Refer to Figure 5-11:

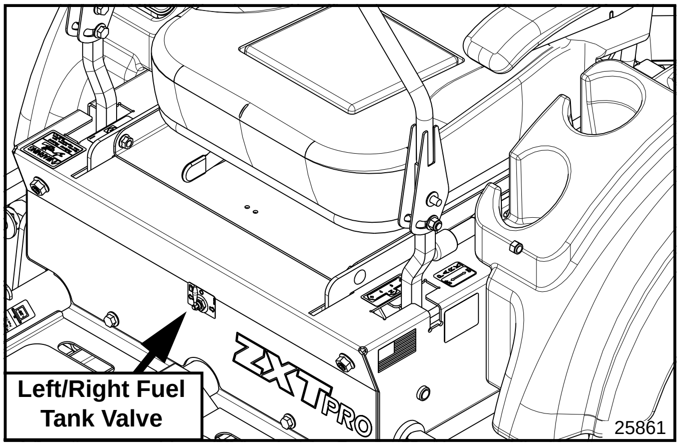
Replace filter annually or after every 100 hours of operation, whichever occurs first. Be sure to install the filter with Flow Arrow pointing towards the engine side of the fuel line. Always check fuel line hoses for any cracks or leaks. Replace as needed.


23803
(Flow Arrow) Indicates direction fuel must flow through the filter.

Fuel Filter
Figure 5-11

Draining The Fuel Tank

1. Park unit on a flat surface. Make sure blade engagement switch is **(OFF)**, both control levers are **(OUT)** and park brake is **(ON)**. Stop engine and remove ignition key.
2. Disconnect negative battery cable from the battery.



Fuel Shut-Off Valve (Honda Engine Location Shown)
Figure 5-12

3. Trace fuel line from the tank to the tee behind the Left/Right Fuel Tank Valve (Refer to Figure 5-12). Remove fuel line hose clamp at the tee and remove fuel line from the tee.
4. Place end of fuel line into a gas can or a drain pan to drain fuel tank.
5. When fuel tank is drained, reattach fuel line to the left/right fuel tank valve with previously removed hose clamp.

General Engine Maintenance

Detailed instructions and recommendations for break-in and regular maintenance are specified in the engine operator's manual. Please refer to this manual for engine servicing, lubricating oil levels with quality and viscosity recommendations, bolt torques, etc. **The engine warranty is backed by the engine manufacturer.** Special attention should be paid to applicable data which is not duplicated here.

Engine Oil and Oil Filter

Refer to Figure 5-16 on page 40:

See "ZXT Pro (Engine Specifications)" on page 49 for oil type and engine capacity.

Check engine oil daily and after every 4 hours of operation. Crankcase dipstick and engine oil fill tube are located at the rear of the machine. Mower must be sitting level when checking oil. Refer to engine manual and maintenance schedule for oil recommendation and capacities.

Change engine oil and oil filter after the first 5 hours of operation and per engine manufacturer's recommendations thereafter. It is recommended that oil be changed more frequently if the mower is operated in extremely dirty conditions.

The oil fill cap/dipstick, oil drain plug and oil filter are located on the right hand side for Honda and Kawasaki engines. Oil fill cap/dip stick and oil drain plug are located on the left hand side for the Briggs & Stratton engine and the oil filter is on the right hand side.

Drain oil into a drip pan by unscrewing the oil drain plug until oil flows freely. Do not remove drain plug. Drain plug will offer resistance once it is unscrewed as far as it should be.

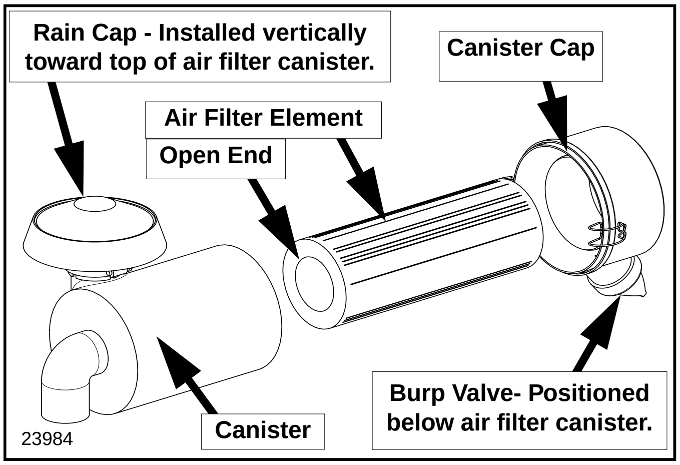
> **IMPORTANT:** Make certain engine is level and you are inserting the dipstick correctly when checking oil. An oil overfill can cause engine problems.

Oil Check, Honda & Kawasaki Engines

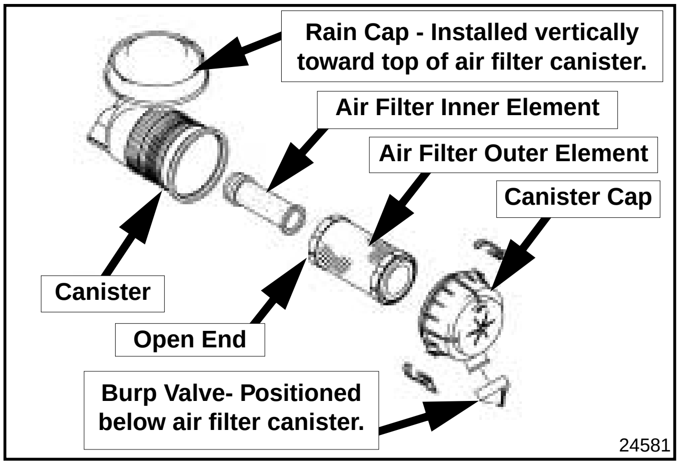
1. Park on a level surface, shut engine off and allow time for oil to cool and drain into the sump.
2. Clean area around oil fill cap/dipstick of dirt and debris before removing it. Unscrew oil fill cap and wipe dipstick clean.
3. Insert dipstick fully in **without screwing it in** and removing again to check oil level.
4. If oil level on the dipstick is near or below the lower limit mark, then add recommended oil until it reaches the full mark. **Do not overfill**.
5. Reinstall oil fill cap/dipstick by screwing it in firmly.

Oil Check, Briggs & Stratton Engine

1. Park on a level surface, shut engine off and allow time for oil to cool and drain into the sump.
2. Clean area around oil fill cap/dipstick of dirt and debris before removing it. Unscrew oil fill cap and wipe dipstick clean.
3. Insert dipstick fully in **by screwing it in** and removing it again to check oil level.
4. If oil level on the dipstick is near or below the lower limit mark, then add recommended oil until it reaches the full mark. **Do not overfill**.
5. Reinstall oil filler cap/dipstick by screwing it in firmly.


Rain Cap - Installed vertically toward top of air filter canister.
Canister Cap
Air Filter Element
Open End
Burp Valve- Positioned below air filter canister.
Canister
23984

Air Filter For Honda Engines
Figure 5-13


Rain Cap - Installed vertically toward top of air filter canister.
Air Filter Inner Element
Air Filter Outer Element
Canister Cap
Canister
Open End
Burp Valve- Positioned below air filter canister.
24581

Air Filter For Kawasaki Engines
Figure 5-14

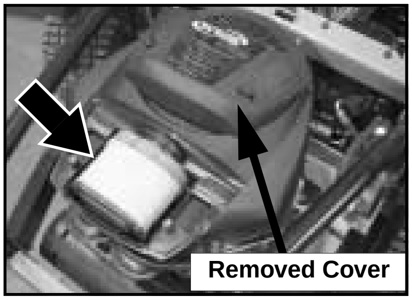
Engine Air Filter

A specially designed dry filter is standard equipment and supplies clean combustion air to the engine.

Briggs & Stratton Air Filter

Refer to Figure 5-15:

Perform engine air filter maintenance per the engine Operator's Manual.


Removed Cover

Briggs & Stratton Air Filter
Figure 5-15

Honda & Kawasaki Air Filters

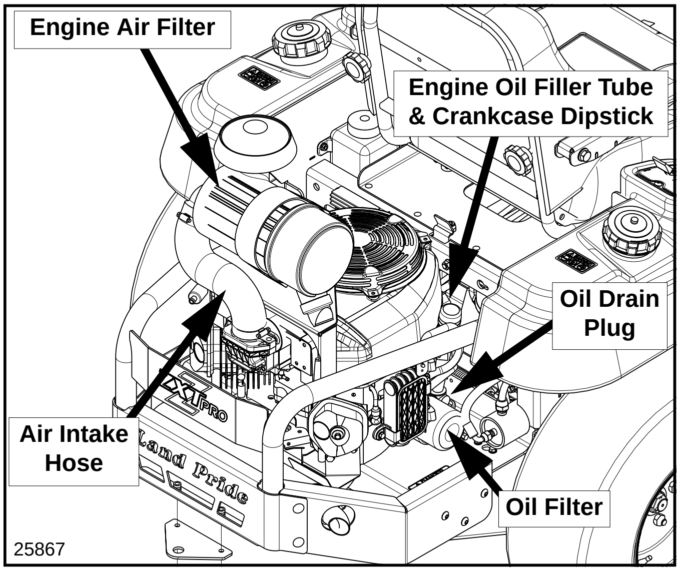
Refer to Figure 5-13, Figure 5-14 & Figure 5-16:

Perform engine air filter maintenance per "Maintenance Schedule" on page 33.

> **NOTE:** Do not operate engine with a damaged air filter or without an air filter element. Dirt will enter the engine causing dust induced engine damage.

> **NOTE:** Do not block air intake to the canister such as setting an object in front of the air intake opening.

1. Replace filter element every 200 hours or every year, (whichever comes first). ***Service more frequently when used in dusty conditions***.
2. Release retaining clips and remove filter element. Clean canister with a damp cloth.
3. Before installing a new filter element, inspect it by placing a bright light inside and rotate the element slowly, looking for any holes or tears in the paper. Also check gaskets for cuts or tears. Do not attempt to use a damaged element which will allow abrasive particles to enter the engine.
4. **Kawasaki only:** Install new Inner element into the new outer element as shown in Figure 5-14.
5. **Honda & Kawasaki:** Install new outer filter element by inserting the open end in the canister first.
6. Reinstall canister cap with burp valve positioned below the canister. Make sure it seals all around the canister before latching retaining clips.
7. Check all fittings and clamps periodically for tightness. Inspect hoses for holes or cracks.
8. Periodically check engine intake hose for signs of ingested dust. Locate and repair source of ingested dirt.
9. Never operate a machine without an air filter installed.


Engine Air Filter
Engine Oil Filler Tube & Crankcase Dipstick
Oil Drain Plug
Air Intake Hose
Oil Filter
25867

Engine Oil Filter, Drain & Filler Tube
(Honda Engine Shown)
Figure 5-16

Air Filter Handling

Refer to Figure 5-13 and Figure 5-14:

Prevent costly and non-warrantable premature engine damage by maintaining the air filter properly. Many engine problems are due to improper handling of the air filter. Dust and dirt that gets past the air filter will damage engine cylinder, piston and bearings in a few hours.

Prevent costly and non-warrantable premature engine damage by avoiding the following common mishandling:

- Over servicing
- Improper installation
- Damaged air filtering system
- Incorrect air filter element

Over Servicing

Over servicing occurs when an air filter element is inspected and/or replaced too often. Dust and dirt can fall off the filter element onto the canister where it can be drawn into the intake system. Only a few grams of dirt getting into an engine during each filter inspection can prematurely produce dust induced engine damage. A partially dirty air filter element is not harmful to the engine.

The air filter element should be changed before it becomes too dirty and restricts air flow to the engine hindering its performance. Replace the air filter element immediately should this happen. Engines that do not get proper amounts of air will draw in excessive amounts of gas causing premature engine damage.

The frequency of the air filter needing changing is largely determined by operating conditions. Dusty conditions will require more frequent servicing.

A dirty filter element should always be replaced with a new element. Improper cleaning procedures can get dust on the inside of the filter causing dirt induced and engine damage. **The air filter warranty expires upon cleaning or servicing a used filter in any manner. Land Pride does not warranty a dust induced engine damage if a used air filter element has been cleaned or serviced in any manner.**

Improper Installation

Improper installation occurs when dust leaks past the seals. The filter element must be aligned within the canister and properly seated on both ends to prevent dirt from entering the engine.

Damaged Air Filtering System

A damaged air filtering system occurs from mishandling of the filter element and operating the mower in areas that could damage the canister.

Banging and/or bumping the filter element against a solid object such as a tire or blowing the element with air can damage the seals and/or force dust and dirt particles through the filter media creating a hole for dirt to pass through to the engine.

Driving the mower carelessly over rough terrain, jutting sticks, heavy brush and severe rocks can damage the air cleaner canister. Periodically inspect the outside of the air cleaner canister for external damage and replace if necessary.

Incorrect Air Filter Element

The air filter must remain intact to block passage of dirt and foreign particles. It must be of sufficient size and construction to withstand stresses, caused by rapid cycling of air volume demanded by the engine, without cracking or tearing under fatigue and pressure. Its filter elements must have the correct media composition, filter area, micron size and dimensions to properly filter the air of dirt while at the same time passing sufficient air to the engine.

Land Pride and the engine manufacturers have carefully selected a reliable filter designed to fit these needs. Always use genuine Land Pride filters. **Failure to use original equipment replacement parts is an alteration and will not be considered for warranty in the event of a dust induced engine damage.** See “ZXT Pro (Engine Specifications)” on page 49 for Land Pride air filter replacement numbers.

Belt Maintenance

Refer to Figure 5-17 and Figure 5-18 on page 43:

Replace belts that show signs of severe cuts, tears, excessive weather checking and cracking or burns caused by slipping. Slight raveling of belt covering does not indicate belt damage. Trim ravelings with a sharp knife.

Inspect belt pulley grooves and flanges for wear. A new belt, or one in good condition, should never run against the bottom of the groove. Replace pulley when this is the case, otherwise belt will lose power and slip excessively.

Never pry a belt onto a pulley as this will cut or damage the fibers of the belt covering.

Keep oil and grease away from belts, and never use belt dressings. Any of these will destroy the belt composition in a very short time.

Deck Drive Belt Removal & Installation

Refer to Figure 5-17 on page 43:

1. Park mower on a flat surface.
2. Make sure blade engagement switch is **(OFF)**, control levers are fully **(OUT)**, park brake is **(ON)** and engine switch key is **(OFF)** and removed.
3. Place deck height in the lowest position.
4. Remove deck belt covers and raise floor panel.
5. Pull hitch pin (#11).
6. Release deck belt tension by putting a 3/4" socket wrench on the over-center-release bolt (#10) and turning counterclockwise. This will relieve the tension on the tension idler spring (#6).
7. Pull tension idler (#5) to the left of the machine to provide maximum belt clearance.
8. Remove existing deck drive belt (#3).
9. Route new deck drive belt (#3) as shown in Figure 5-17.
10. Re-tension the tension idler (#5) by turning the over-center-release bolt (#10) clockwise. Check belt tension per the “Deck Drive Belt Adjustment” on page 26.
11. Re-install hitch pin (#11).
12. Re-install deck belt covers and lower floor panel.

Ground Drive Belt Removal & Installation

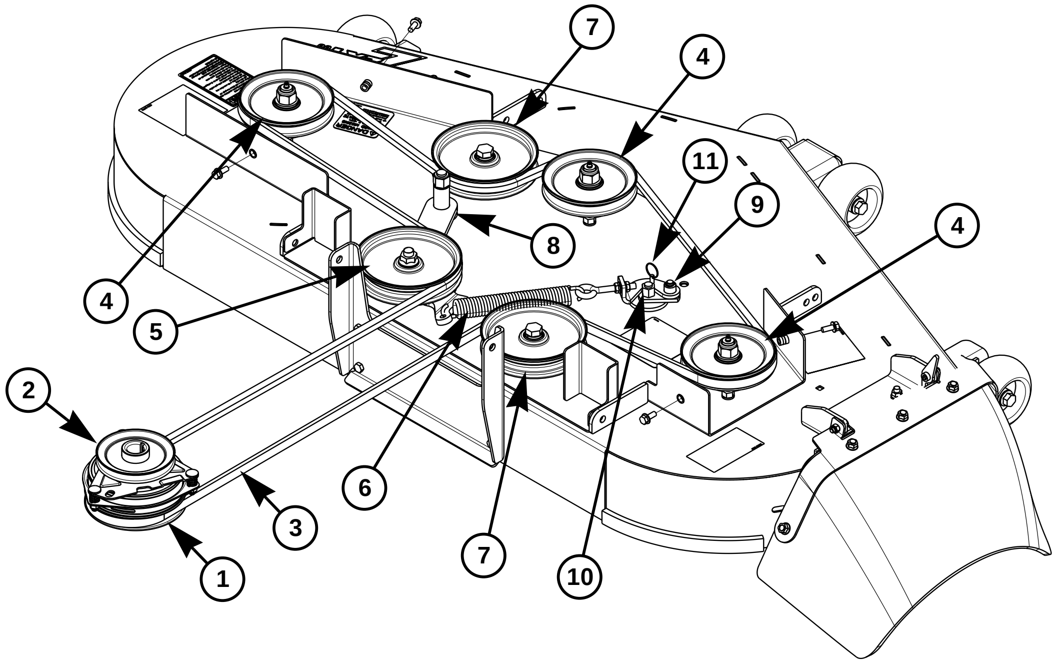
Refer to Figure 5-18 on page 43:

1. Park mower on a flat surface.
2. Make sure blade engagement switch is **(OFF)**, control levers are fully **(OUT)**, park brake is **(ON)** and engine switch key is **(OFF)** and removed.

WARNING

Make sure engine and engine muffler is completely cooled before working on and around the drive belt. Severe burns to the body could result if engine and muffler have not cooled.

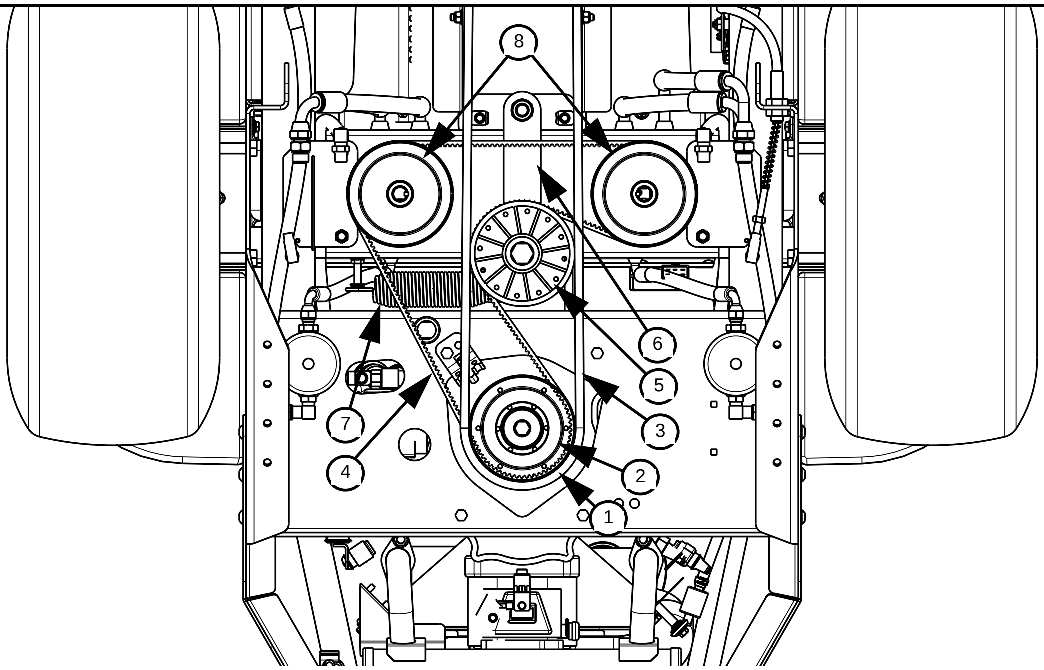
3. Place deck height in the lowest position.
4. Remove deck drive belt (#3) from deck drive pulley (#1) as outlined in "Deck Drive Belt Removal & Installation" instructions on this page. This belt does not need to be removed from any of the deck pulleys shown in Figure 5-17.
5. Release tension on ground drive belt (#4) by pulling on pump idler arm (#6) and carefully removing belt from pump tension idler (#5). **Use caution when releasing idler arm as pump idler spring (#7) is in tension and will snap the arm back into position**.
6. Slide ground drive belt (#4) off the two pump pulleys (#8) and remove from mower.
7. Slide new belt over pump pulleys (#8) and ground drive pulley (#2).
8. Pull on pump idler arm (#6) and slide belt onto pump tension idler (#5). **Make certain to keep fingers from getting between the belt and the pulley when pulley is released and tension is re-established.**
9. Re-install deck drive belt (#3) on deck drive pulley (#1). Make sure the belt is routed properly on all deck pulleys.
10. Re-tension deck belt idler per the "Deck Drive Belt Removal & Installation" instructions on this page.



1. Deck drive pulley
2. Ground drive pulley
3. Deck drive belt
4. Deck blade spindle pulley
5. Tension idler
6. Tension idler spring
7. Deck belt idler
8. Idler arm
9. Over-center tensioner
10. Over-center release (Use 3/4" socket wrench)
11. Hitch Pin

25879

Deck Belt Drive Layout
Figure 5-17



1. Deck drive pulley
2. Ground drive pulley
3. Deck drive belt
4. Ground drive belt
5. Pump tension idler
6. Pump idler arm
7. Pump idler spring
8. Pump pulleys

25873

Ground Drive Belt Viewed from the Bottom
Figure 5-18

Mower Blade Maintenance

Blade Inspection

Check mower blades daily, they are the key to power efficiency and well groomed turf. Keep them sharp, a dull blade will tear rather than cut grass, leaving a brown ragged top on the grass within a few hours. A dull blade also requires more power from the engine.

Replace any blade which is bent, cracked or broken.

WARNING

DO NOT try to straighten a blade that is bent. Never weld a broken or cracked blade. ALWAYS replace with a new Land Pride blade to assure safety.

DANGER

Never work with blades while engine is running or blade is engaged. Always place blade engagement switch in the down (Off), place both control levers in neutral and fully (OUT), set park brake (ON) and turn engine (OFF). Block up mower when you must work under it. Wear gloves when handling blades. Always check for blade damage if mower strikes rock, branch or other foreign object during mowing!

Cutting Blade Removal & Installation

IMPORTANT: Blade mounting bolts have right hand threads. Turn blade bolts counterclockwise to loosen and clockwise to tighten.

1. Remove blades by grasping blade end with a rag or thick padded glove while loosening blade bolt.
2. With a 11/16” wrench, remove 1/2” center blade bolt and Washer from bottom of cutting blade.

IMPORTANT: Replace blades with Land Pride blades only.

IMPORTANT: Always install blades with cutting edge facing direction of blade spindle rotation and with wing tips pointing up towards bottom of deck.

3. Reinstall blade, blade washer and bolt. Care should be taken when installing the blade bolt to not get it cross threaded.
4. Tighten blade bolt to the correct torque. See “Additional Torque Values” on page 55 for correct torque values.

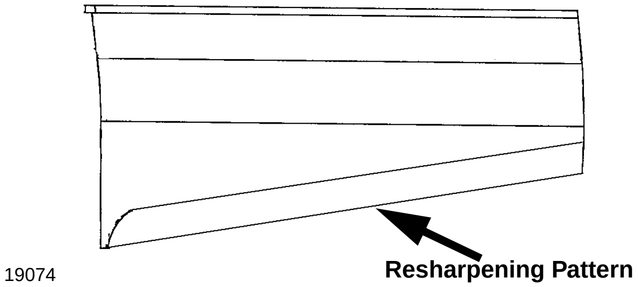
Blade Sharpening

CAUTION

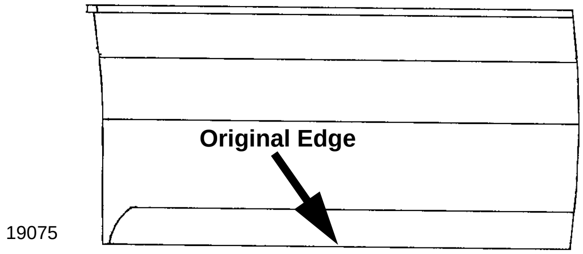
ALWAYS wear eye protection and gloves when sharpening a blade.

NOTE: Care should be taken in order not to remove any more material than necessary to sharpen blade.

1. If the blade cutting edge is dull or nicked, it should be replaced or sharpened.
2. Clean blade, blade washer and mounting surface of all debris before replacing or sharpening.
3. Sharpen blades on a grinder following pattern as shown in Figure 5-17. Grind cutting edge at the same bevel (27 1/2 degrees) as the original. Sharpen only the top of the cutting edge to maintain sharpness. Touch-up sharpening can be done with a file.

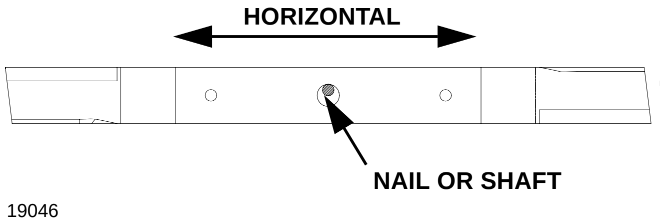


Do not sharpen to original pattern (below).
It is easier to get a straight cutting edge following the resharpening pattern shown above.



Blade Resharpening
Figure 5-17

4. Balance of a blade is generally maintained by removing an equal amount of material from each end of the blade when sharpening. Check blade balance by positioning the blade horizontally on a nail or shaft through the center hole. See Figure 5-18. If either end of the blade rotates downward, grind (remove) metal on that end until the blade will balance. The blade is properly balanced when neither end drops. If blade is out of balance, true it up before reinstalling.



Blade Balancing
Figure 5-18

Refer to Figure 5-19 and Figure 5-20:

Lay the blade on a flat surface and check for distortion. Replace any distorted blade.

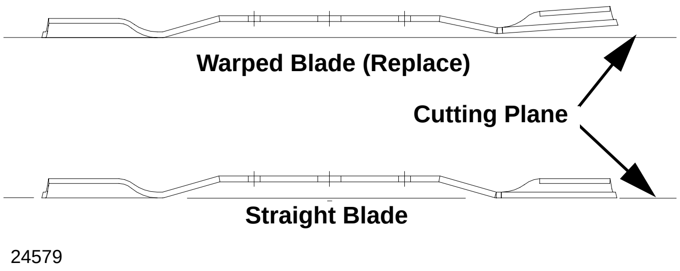
Do not re-use spindle bolts which have stripped, worn or undercut threads. Refer to “Torque Values Chart” on page 55 when replacing hardware for proper torque.

WARNING

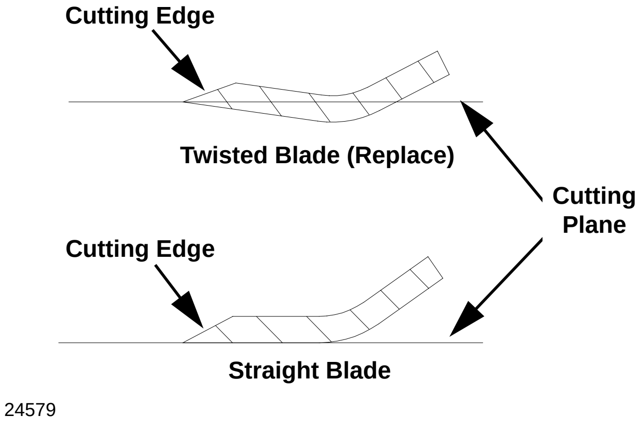
When mounting blades, rotate them after installation to ensure blade tips do not touch each other or sides of the mower.

WARNING

Failure to correctly torque the bolt may result in the loss of the blade which can cause serious injury.



Comparison of Warped and Straight Blades
Figure 5-19



End View of Blades, Twisted & Straight Blades
Figure 5-20

Storage

Take the following steps when storing the mower at the end of the season and when the unit will not be used for long periods to ensure readiness for the next mowing season.

IMPORTANT: Do not use a high pressure washer on or around the hydraulic pumps and motors. Water intrusion will result and void the pump and motor warranty.

1. Remove all grass, dirt, trash and grease that may have accumulated on the mower and moving parts.
2. Scrape off compacted dirt, trash and grass clippings from the deck underside. A coating of oil may also be applied to the deck underside to minimize oxidation.
3. Clean and touch up all scrapes with Land Pride spray paint.
4. Check blades and blade bolts for wear and replace if necessary.
5. Service air cleaner. See “Honda & Kawasaki Air Filters” on page 40 or engine Operator’s Manual for Briggs & Stratton engine.
6. Check thoroughly for any worn or damaged parts that need replacing and order them from your nearest Land Pride Dealer.
7. Thoroughly lubricate machine, according to lubrication instructions.
8. Block mower up so weight is off tires.

NOTE: Do not deflate tires.

9. Protect battery from freezing temperatures. Disconnect the negative ground wire from the battery to reduce the chances of a slow electrical drain. Occasionally recharging battery during storage will extend battery life.
10. Prepare engine for storage as described below.
11. Store mower in a clean, dry place.

Preparation of Engine for Storage

When engine is to be unused for long periods, proceed as follows:

1. Run engine for a minimum of 15 minutes.
2. Drain oil from crankcase while engine is still warm.
3. Refill with fresh oil of proper viscosity.
4. Drain fuel tank and run engine until it stops from lack of fuel. Gasoline evaporates if left in carburetor for long periods, forming gum and varnish deposits in carburetor. These deposits will cause engine flooding and loss of power.
5. Remove and replace fuel filter if not done in previous 100 hours.

6. Remove spark plugs and pour a tablespoon of engine oil into each spark plug hole. Install plugs, but do not reconnect plug leads.
7. Crank engine with starter at least a dozen revolutions to distribute oil over cylinder walls and valve mechanism.
8. Clean dirt and chaff from cylinder fins, blower housing and muffler.
9. Clean exterior surface of engine. Spread a light film of oil over any exposed metal surfaces of engine that are subject to corrosion.
10. Check oil filler cap and fuel tank cap to make certain they are securely in place.

New Season Preparation

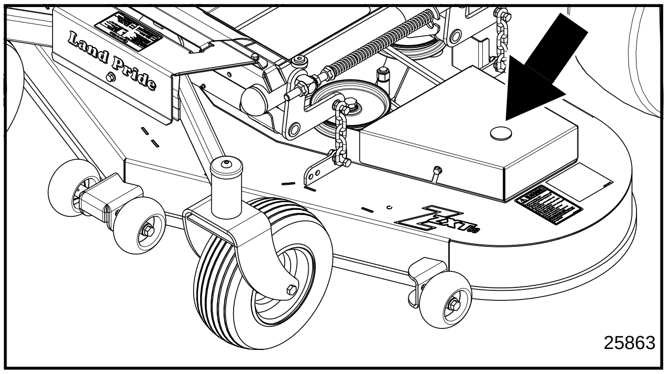
The following service is required before starting the mower after storing it for a season:

> **IMPORTANT:** Do not use a high pressure washer on or around the hydraulic pumps and motors. Water intrusion will result and void the pump and motor warranty.

1. Clean mower, removing trash and dirt accumulation.
2. Check engine oil level.
3. Tighten any bolts that have loosened and make sure all hair pins, cotter pins and clevis pins are in place.
4. Install all safety shields and review safety precautions listed in this manual.
5. Check and inflate tires to correct psi provided in “Tire Inflation Chart” on page 55.
6. Fill fuel tank with fresh gasoline.
7. Reconnect spark plug leads to spark plug.
8. Run machine at half speed for 5 minutes, checking operation of the control levers. Stop engine and check for oil leaks, loose fittings and so forth.

Lubrication Points

Lubrication Legend	Multi-purpose spray lube	Multi-purpose grease lube	Multi-purpose oil lube	50 hrs	Intervals in hours at which lubrication is required



25 Hours

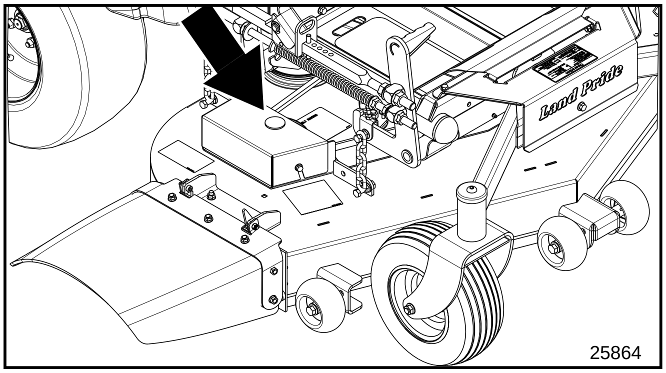
Left Blade Spindle

Access through rubber slit in pulley cover.

1 - Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required



25 Hours

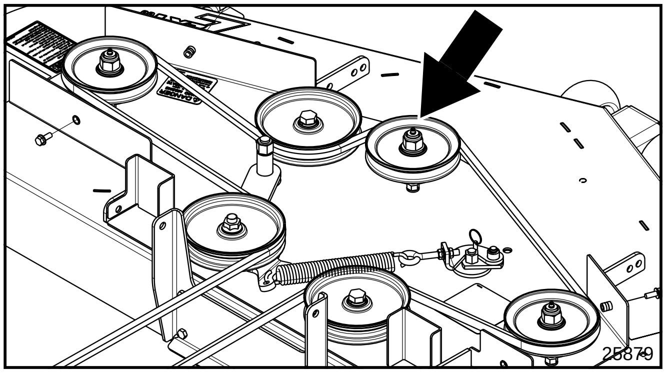
Right Blade Spindle

Access through rubber slit in pulley cover.

1 - Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required



25 Hours

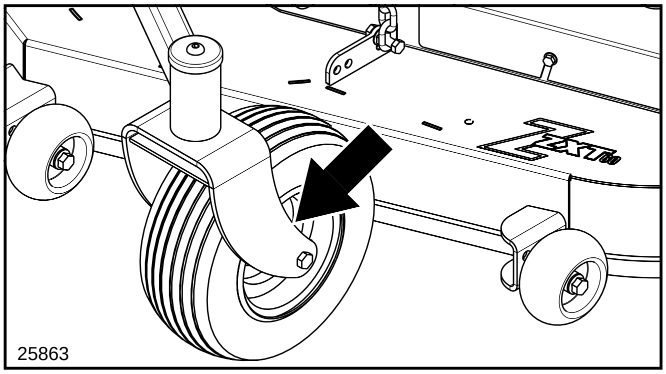
Center Blade Spindle

Hinge floor panel above deck up to access

1 - Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required



100 Hours

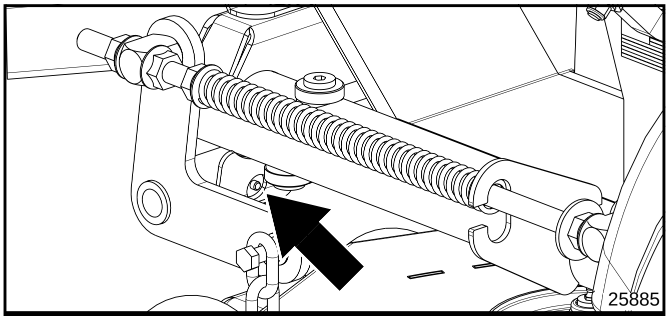
Caster Wheel Bearing

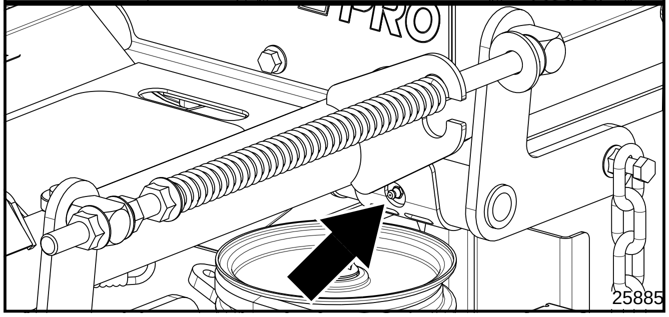
Located on hub of caster wheel

2 - Zerks (One on each caster wheel)

Type of Lubrication: Multi-purpose Grease

Quantity = As required





100/M Hours

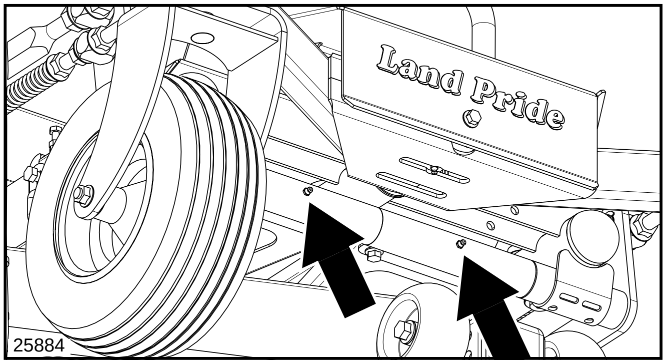
Deck Lift Points

Locate under main frame beams (both sides)

4 - Zerks (2 per side - left side shown)

Type of Lubrication: Multi-purpose Grease

Quantity = As required every 100 hours or monthly, whichever comes first.



100/M Hours

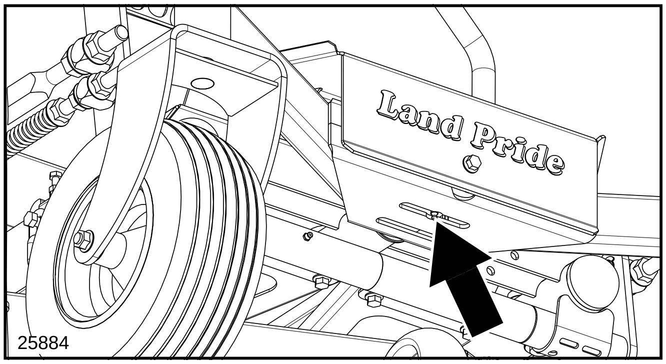
Deck Lift Pivot

Located in front of deck pivot mount

2 - Zerks

Type of Lubrication: Multi-purpose Grease

Quantity = As required
Every 100 hrs. or monthly, whichever comes first.



500/A Hours

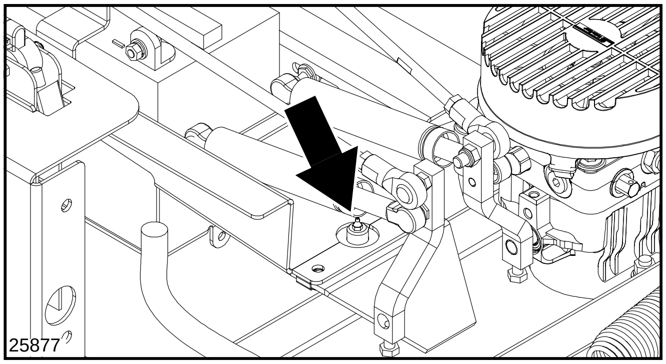
Front Axle Center Pivot

Located at the bottom center of axle

1 - Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required
Every 500 hrs. or annually, whichever comes first.



500/A Hours

Idler Arm Pivot Pin

Located under the seat

1 - Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required
Every 500 hrs. or annually, whichever comes first.

ZXT Pro (Engine Specifications)

Mower Model No	ZXT54 & ZXT60			
Engine Manufacture	**Honda**	**Kaswaski**		**Briggs & Stratton**
Horsepower	24	25	31	26
Engine Model Type	GXV670-TAF	FH721V	FX850V	44P777-0116-E1
Max Torque	37 FT. LBS @ 2500 RPM	41.2 FT. LBS @ 2400 RPM	54.3 FT. LBS @ 2400 RPM	N/A
Charging System	12-volt, 20 amp	12-volt, 13 amp	12-volt, 15 amp	12-volt, 16 amp
Starter	12-volt solenoid shift positive engagement	12-volt Electric starter	12-volt Electric starter	12-volt Industrial Starter
Ignition	Keyed 12 volt electronic system			
Governor	Mechanical			
Fuel Type	Unleaded gasoline with octane rating of 87 or higher			
Oil Cooling	External Cooler	N/A	External Cooler	N/A
Engine Cooling	Air cooled, Fly-wheel fan			
Engine Type	4-stroke OHV, V-twin cylinder, gasoline			
No of Cylinders	2			
Displacement	40.9 cu. in. (670cc)	41.2 cu. in. (675cc)	52 cu. in. (852cc)	44.2 cu. in. (725cc)
Compression Ratio	8.3:1	8.1:1	8.2:1	N/A
Spark Plug No.	ZGR5A (NGK) J16CR-U (DENSO)	BPR4ES (NGK)		
Oil Capacity with Filter Change	2.6 US quarts	2 US quarts	2.1 US quarts	2 US quarts
Oil Type	SAE 10W-30			
Oil Filter Part No.	831-038C	831-034C		831-053C
Fuel Filter Part No.	831-035C	831-031C		831-035C
Air Filter Part No. Inner Filter	None	839-374C	839-973C	None
Outer Filter	839-323C	839-323C	839-974C	831-054C

ZXT Pro (Hydrostatic Transmission Specifications)

Mower Model No‘	ZXT54	ZXT60
Traction Drive Type	Dual Hydrostatic Transmission	
Hydraulic Motor/Pumps	Two variable displacement, axial piston type.	
Hydraulic Motor/Pump Drive	V-belt drive from engine crankshaft	
Hydraulic Oil Type	SAE 20W-50 engine oil	
Hydraulic Reservoirs	Dual independent tubular chassis construction with expansion tanks for oil level check.	
Hydraulic Oil Capacity	7.5 pints oil capacity each side or 15 pints total	
Hydraulic Oil Filter No.	810-590C	

ZXT Pro (General Specifications)

Mower Model No	ZXT54	ZXT60
Certifications and Standards	Complies with ANSI B71.4 testing and safety standards for commercial riding mowers.	
Weight with deluxe seat	1084 lbs.	1109 lbs.
Width of Cut	54"	60"
Trim Capacity (left side)	4"	10"

Specifications to continue on next page.

ZXT Pro (General Specifications)

Mower Model No	ZXT54	ZXT60
Overall width	55 3/8"	61 3/4"
Overall Length without hitch plate	83"	
Tire-to-tire width:	49"	
Overall Height	48" to top of seat back and 70 1/2" to top of ROPS	
Drive Tires	24 x 10.5 - 12 Turf Tread	
Front Tires	13 x 5 - 6, Ribbed tread with roller bearings	
Fuel Capacities	12 US GAL	
Steering Type	Hydrostatic Twin lever steering provides independent control of each drive wheel.	
Twin Lever Steering Controls	Speed, forward, reverse, brake, and turns.	
Steering Turning Radius	True zero degree. Turns with counter-rotating independent drive wheels.	
Brake Service	Hydrostatic dynamic braking.	
Park Brake Type	Manual activated over-center lever to wet disc brake.	
Ground Speed	Forward: 0-11 MPH Reverse: 0-5.5 MPH	
Motor Drive	Single V-belt with electric clutch and spring tension idler pulley.	
Wheel Drive	High torque piston type planetary reduction motors	
Safety Features	Electric logic-control system governs blade engagement, forward & reverse motion, engine starting & running, and parking brake functions.	
Seat Options	Deluxe cushion seat with arm rests or molded vinyl comfort suspension seat with arm rest.	
Mainframe Construction	Welded steel	
Drive Motor Mount	Fabricated from 3/16" steel plate.	
Front Caster Wheels	Free turning with greasable roller bearings.	
Front Caster Forks	5/16” steel.	
Deck Thickness	11 Gauge decks with 11 gauge doubler plate and 1/4" reinforcement plate at spindle housing mounts	
Box-Section Reinforced Front Edge	11 ga. thick	
Deck Trim Edges	Solid 1” x 3/8” steel bars for reinforced impact area	
Deck Housing Depth	5 1/8” deep, (room for high-capacity mowing)	
Deck Lift	Foot-operated deck height adjustment with locking pin for setting height.	
Hand Operated Controls	Ignition switch, throttle lever, control levers, park brake, blade engagement switch, choke knob and Fuel Tank Selector Valve.	
Indicators	Engine warning light and hour meter for engine run time.	
Cup Holder	Two cup holders molded into the left side fuel tank. Accommodates nearly any cup size.	
Cutting Height Adjustments	Height adjustment in 1/4" increments from 1” to 5”.	
Mowing Blades	3 Heavy-duty, heat-treated, high-lift steel blades	
	.25" x 2 1/2" x 18.8"	.25" x 2 1/2” x 20.9”
Blade Tip Speed	18,515 FPM	18,700 FPM
Blade Drive	Single B-Section belt drive to all three spindles. Spring tension idler pulleys.	
Blade Spindles	Machined ductile iron housing, 1" diameter high carbon steel shafts and greasable ball bearings.	
Deck Suspension	Four point suspension from frame by mechanical linkage with counter balance springs.	
Anti-Scalp Rollers	4 Anti-scalp rollers to improve flotation in rolling and uneven terrain.	

ZXT54 & ZXT60 Series

Features	Benefits
54" or 60" Cutting Width	Sized right and priced right for high-end residential and cost conscious ranchers, farmers, estate owners, and commercial operators.
Mid-mount Deck Design	Puts deck closer to operator’s line of sight for more efficient and precise operation.
Drive Tire Stance	49" outside tire width provides for excellent stability over uneven and hilly ground along with good maneuverability.
Excellent Trim Capability	49" wheel stance provides for good trim capability especially when equipped with a 60" deck.
Adjustable steering levers	Comfort Grip steering levers are designed with a wide range of adjustments to accommodate almost any size of operator.
Ground Speed	Forward 11 mph and reverse 5.5 mph for high productivity.
Premium Drive Tires	24 x 10.5-12 for excellent traction, stability and a smooth ride.
Floating deck design	Chain suspension flotation provides excellent flotation over uneven terrain.
Rapid deck height adjustment	Spring loaded and foot operated lever action deck height adjuster with pin locator makes for quick, easy, and precise cutting height adjustments.
Anti-scalp rollers	Four anti-scalp rollers with two located on deck ends and two located toward mid-decks keeps scalping to a minimum.
1" to 5" Cutting height	Cutting height in 1/4" increments for good cutting height range control.
Front caster action wheels	Two front mounted 13 x 5 ribbed tread caster action wheels mounted in heavy duty pivoting caster forks for quick and durable response.
Lockable floating front axle.	Floating front axle provides for smoother ride, more uniform cut, and optimal traction capability by keeping all tires equally in contact with the ground over uneven terrain. Axle lock provides for temporary curb or edge cutting without grounding or hanging up the deck.
High blade tip speed	18,515 fpm on the 54" deck and 18,700 fpm on the 60" deck for clean quality of cut.
Easy access spindle housings	1" diameter greaseable spindle housing with easy access lubrication points. Housings are ductile iron designed to handle heavy shock loads.
Kevlar Drive Belts	Single hydrostatic pump drive belt and single deck drive belt made with Kevlar^{TM} fiber for long belt life.
Lever Activated Park Brake	A manually activated over-center lever next to the operator’s seat easily and conveniently activates or releases a highly durable and reliable enclosed wet disc brake. Mower will not move until brake is released.
Seat safety interlocks	Rising off of the seat with blades engaged will cut engine power and stop blade rotation. Engine cannot be started with blade engagement switch in “on” position.
Choice of engines	Proven 26 hp Briggs and Stratton ELS, 25 hp Kawasaki, 31 hp Kawasaki, or 24 hp Honda to meet customer preferences with power and performance to spare.
Engine Air Filtration	Premium Honda and Kawasaki engines come standard with a remote air intake which filters out 95 percent of airborne particles. The Briggs ELS come standard with a proven 2-stage quick access filter cartridge.
Easy Engine Access	Easy access to, oil dipstick, spark plugs, oil drain ports, air filters and oil filters for convenient serviceability.
Hour meter	Measure actual engine run time to monitor service intervals.
Center Mounted Rear Engine Placement	Rear engines are center mounted for maximum stability, easy service access, and maximized leg room.
Electric start	12 volt keyed ignition switch and choke control are positioned for comfortable operation.

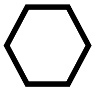
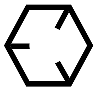
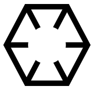
ZXT54 & ZXT60 Series

Twin six gallon fuel tanks	12 gallon fuel capacity for plenty of operating range. Tanks are sleekly styled with molded in drink holders. A combination tank selector and shutoff valve is standard equipment. Fuel caps are vented and placed inboard and center mounted to protect caps and prevent overflow spills on inclines.
Isolated exhaust muffler	Mufflers are tucked away to reduce noise and to provide additional protection against burns.
Completely independent twin hydrostatic drives	Outboard heavy-wall tubular frame members also serve as independent left and right side hydraulic reservoirs for hydrostatic drive motors and fan cooled hydrostatic pumps located on each side of the machine eliminating the possibility of cross-contamination.
Stronger yet cleaner design	Integral frame and hydraulic reservoir construction reduces component clutter under the seat for easy clean out and service access.
Ergonomically Designed Control Console	Instrumentation and console controls are positioned for easy visual or fingertip access.
Hinged Seat	Provides easy service access without tools.
Hinged foot platform	Provides quick and convenient service access to topside deck components without the need for tools.
Comfortable seats	Deluxe Cushion or Molded Vinyl with suspension and adjustable positioning for operator comfort and sustained productivity.
Easy Clean out Top Deck Design	Cutting deck tops are designed to allow air and debris to move across the deck for improved belt cooling and easy clean out.
Optional ROPS	OSHA certified folding ROPS available for added operator protection.
Sun Canopy	An optional folding soft sun canopy is available to fit folding ROPS.
Snow Plow	An optional 60" or 72" motion activated snow plow is available for snow removal and year round usage. Mower deck does not need to be removed to attach the snow plow.

Symptoms	Probable Causes	Suggested Remedies
Starting motor does not crank	Control levers are not in neutral position	Place control handles in neutral (OUT)
	Park brake not engaged (ON)	Engage park brake
	Blade Engagement switch is engaged	Disengage blade switch
	Weak or dead battery	Recharge or replace
	Loose or broken switches and/or damaged electrical wiring.	Repair or replace switches and electrical wiring
	For additional causes	See engine manual
Engine cranks but does not start	No fuel in the fuel tanks	Fill tank
	Fuel filter and/or fuel line plugged	Replace fuel filter and/or fuel line
	Fuel tank valve turned to “OFF”	Select a fuel tank with gasoline See Figure 5-12 on page 39.
	Fuel tank valve turned to an empty tank	Switch fuel valve to the other tank See Figure 5-12 on page 39.
	Numerous	See engine manual
Engine: Runs with continuous misfiring or engine runs unevenly or erratically	Numerous	See engine manual
Grass cutting is ragged or uneven	Dull, bent or broken cutting blades	Sharpen or replace cutting blades
	Deck full of wet sticky grass	Clean underside of deck
	Cutting Blades are not operating at full engine speed	Increase engine rpms to full speed (3600 rpm)
	Belt over center take-up is loose	Tension over center take-up
	Worn or broken belt	Replace worn and broken belt See “Belt Maintenance” on page 42
	Deck is not level	Check air pressure in all 4 tires Make level adjustments to the deck See “Deck Leveling Adjustments” on page 26
Loss of power or system will not operate in either direction	Bypass valve open	Close bypass valve See Figure 2-8 on page 18
	Linkage bolt is loose or lost	Replace linkage bolt
	Bad ground drive belt and/or pump idler pulley	Replace belt and/or idler pulley Tighten idler pulley if loose
	Loose, lost or broke idler pulley spring	Reattach or replace idler pulley spring
	Restrictions in air cleaner	Service air cleaner
	Internal interference or leakage in Hydro-Drive	See your dealer
	Insufficient hydraulic oil supply	Check hydraulic oil level in expansion tank and add oil if needed
	Poor compression	See your dealer
	Steering linkage needs adjustment	Adjust linkage See “Steering Adjustments” on page 22
	Air in system	Check filter & fittings
	For additional causes	See engine manual

Symptoms	Probable Causes	Suggested Remedies
Overheating	Air intake screen or cleaning fins clogged	Clean screen and fins
	Not operating engine at rated speed	Increase engine speed to 3600 rpm
	For additional causes	See engine manual
Low oil pressure (Indicated by oil light on while engine is running.)	Low oil level	Add oil
	Oil diluted or too light	Change oil and check for source of contamination
High oil consumption	Numerous	See your dealer
Mower jerky when starting or operates in one direction only	Steering control linkage needs adjustment	Adjust linkage See “Steering Adjustments” on page 22
	Hydro-drive faulty	See your dealer
Hydraulic system operates hot	Hydro-drive faulty	See your dealer
	Not operating engine at rated speed	Increase engine speed to 3600 rpm
Mower creeps when steering control levers are in neutral	Steering linkage needs adjustment	Adjust linkage See “Steering Adjustments” on page 22
Mower circles or veers in one direction	Steering linkage needs adjustment	Adjust linkage See “Steering Adjustments” on page 22
	Hydro-drive faulty	See your dealer
Mower creeps in park	Steering linkage needs adjustment Park brakes worn or out of adjustment	Replace or adjust as required See “Steering Adjustments” on page 22 and “Park Brake Adjustment” on page 29.
Parking brakes will not hold on slopes of 15 deg. or less.	Park brakes worn or out of adjustment	Replace or adjust as required See “Park Brake Adjustment” on page 29

Torque Values Chart

Bolt Size (Inches)	Bolt Head Identification					
	 Grade 2		 Grade 5		 Grade 8	
in-tpi[1]	N m[2]	ft-lb[3]	N·m	ft-lb	N·m	ft-lb
1/4" - 20	7.4	5.6	11	8	16	12
1/4" - 28	8.5	6	13	10	18	14
5/16" - 18	15	11	24	17	33	25
5/16" - 24	17	13	26	19	37	27
3/8" - 16	27	20	42	31	59	44
3/8" - 24	31	22	47	35	67	49
7/16" - 14	43	32	67	49	95	70
7/16" - 20	49	36	75	55	105	78
1/2" - 13	66	49	105	76	145	105
1/2" - 20	75	55	115	85	165	120
9/16" - 12	95	70	150	110	210	155
9/16" - 18	105	79	165	120	235	170
5/8" - 11	130	97	205	150	285	210
5/8" - 18	150	110	230	170	325	240
3/4" - 10	235	170	360	265	510	375
3/4" - 16	260	190	405	295	570	420
7/8" - 9	225	165	585	430	820	605
7/8" - 14	250	185	640	475	905	670
1" - 8	340	250	875	645	1230	910
1" - 12	370	275	955	705	1350	995
1-1/8" - 7	480	355	1080	795	1750	1290
1 1/8" - 12	540	395	1210	890	1960	1440
1 1/4" - 7	680	500	1520	1120	2460	1820
1 1/4" - 12	750	555	1680	1240	2730	2010
1 3/8" - 6	890	655	1990	1470	3230	2380
1 3/8" - 12	1010	745	2270	1670	3680	2710
1 1/2" - 6	1180	870	2640	1950	4290	3160
1 1/2" - 12	1330	980	2970	2190	4820	3560

Bolt Size (Metric)	Bolt Head Identification					
	Class 5.8		Class 8.8		Class 10.9	
mm x pitch[4]	N·m	ft-lb	N·m	ft-lb	N·m	ft-lb
M 5 X 0.8	4	3	6	5	9	7
M 6 X 1	7	5	11	8	15	11
M 8 X 1.25	17	12	26	19	36	27
M 8 X 1	18	13	28	21	39	29
M10 X 1.5	33	24	52	39	72	53
M10 X 0.75	39	29	61	45	85	62
M12 X 1.75	58	42	91	67	125	93
M12 X 1.5	60	44	95	70	130	97
M12 X 1	90	66	105	77	145	105
M14 X 2	92	68	145	105	200	150
M14 X 1.5	99	73	155	115	l215	160
M16 X 2	145	105	225	165	315	230
M16 X 1.5	155	115	240	180	335	245
M18 X 2.5	195	145	310	230	405	300
M18 X 1.5	220	165	350	260	485	355
M20 X 2.5	280	205	440	325	610	450
M20 X 1.5	310	230	650	480	900	665
M24 X 3	480	355	760	560	1050	780
M24 X 2	525	390	830	610	1150	845
M30 X 3.5	960	705	1510	1120	2100	1550
M30 X 2	1060	785	1680	1240	2320	1710
M36 X 3.5	1730	1270	2650	1950	3660	2700
M36 X 2	1880	1380	2960	2190	4100	3220

[1] in-tpi = nominal thread diameter in inches-threads per inch

[2] N·m = newton-meters

[3] ft-lb= foot pounds

[4] mm x pitch = nominal thread diameter in millimeters x thread pitch

Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.

Additional Torque Values

Drive Wheel Lug Nuts (1/2"-20 UNF)	75 ft-lbs.	102 N-m
Blade Spindle bolts (1/2"-20 UNF x 2 1/2" GR8)	60 to 70 ft-lbs.	82 to 95 N-m
Spindle Housing Flange Bolts	55 ft-lbs	75 N-m
Idler Pulley bolts (5/8"-11 UNC GR5)	130 ft-lbs.	176 N-m
Electric Clutch Bolt (7/16"- 20 UNF GR8)	50 to 55 ft-lbs.	68 to 75 N-m

Tire Inflation Chart

Tire	Inflation PSI
Drive Wheels	8 to 12
Caster Wheels	8 to 12

Notes

Warranty

Land Pride warrants to the original purchaser that this Land Pride product will be free from defects in material and workmanship beginning on the date of purchase by the end user according to the following schedule when used as intended and under normal service and conditions for personal use.

Overall unit: 2 years limited warranty on Parts and Labor.

Engine: 2 years limited warranty through Engine manufacturer.

Hydraulic Wheel Motors and Pumps: 3 years on Parts and Labor.

Front Edge of Mower Deck: Limited warranty against all defects in the deck which results in the front edge of the deck being bent into the blades for the entire length of ownership by the original purchaser.

Frame: Frame breakage through the entire length of ownership by the original purchaser.

Blade Spindle bearings: 3 years Parts and Labor.

Front Caster Wheel Yoke Bearings: 3 years or 1200 hours Parts and Labor

Battery: 1 year limited warranty.

Rental Units: Limited warranty on all materials and workmanship for a period of 90 days.

Belts, blades, and tires are considered wear items.

Filters and Plugs are considered maintenance items.

This Warranty is limited to the replacement of any defective part by Land Pride and the installation by the dealer of any such replacement part, and does not cover common wear items such as blades, belts, tines, etc. Land Pride reserves the right to inspect any equipment or parts which are claimed to have been defective in material or workmanship.

This Warranty does not apply to any part or product which in Land Pride’s judgment shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed. Misuse also specifically includes failure to properly maintain oil levels, grease points, and driveline shafts.

Claims under this Warranty must be made to the dealer which originally sold the product and all warranty adjustments must be made through such dealer. Any action for breach of warranty must be commenced within 25 months following delivery in non-rented application, and within 120 days following delivery in rented application.

This Warranty shall not be interpreted to render Land Pride liable for damages of any kind, direct, consequential, or contingent to property. Furthermore, Land Pride shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to loss of crops, any expense or loss for labor, supplies, rental machinery or for any other reason.

No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.

This Warranty is not valid unless registered with Land Pride within 30 days from the date of purchase by the end user.

Corporate Office: P.O. Box 5060
Salina, Kansas 67402-5060 USA
www.landpride.com